

**OMRON**

AC Servomotors / Servo Drives

# G5 Series

Extreme mechatronics meets  Automation



» Sub micron precision and ms settling time

» Motion network and safety built-in

» Double registration and full closed loop

**realizing**

# Extreme mechatronics...

## At the heart of every great machine

Great machines are born from a perfect match between control and mechanics. G5 gives you the extra edge to build more accurate, faster, smaller and safer machines. You will benefit from an almost 25% reduction in motor weight, and gain 50% cabinet space.

You will achieve sub micron precision and ms settling time. Some might call it perfection, we just call it tireless innovation to help you build great machines.

### Panel operator functions

- Display shows user selected data
- Keys for setting/ monitoring parameters
- 2 configurable analog outputs for monitoring

### Rugged and smart design

- IP67 motor and connectors
- No flying leads
- 5G vibration resistance

### 40% reduction in motor cogging

- Use of 10 pole motors
- Improved technology to minimize the encoder non-lineal errors

-40%

### 8 times higher resolution

- 20 bit encoder
- Faster processor

Kg -25%

-15%



### 25% lighter and 15% smaller

- Patented new stator PACK & CLAMP technology
- 40% reduction in iron losses
- 45% smaller encoder

### Up to 50% cabinet size reduction

- Up to 40% smaller drive
- Extra 10% saving thanks to side by side mounting

### Safety conformance

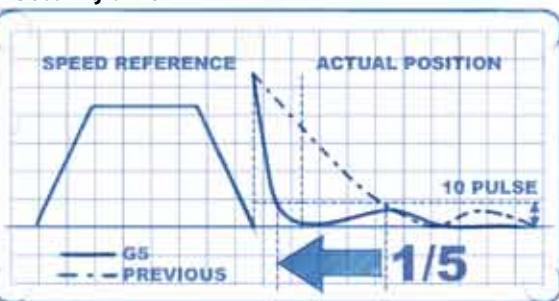
- PL-d according ISO13849-1:2008
- STO: IEC61800-5-2:2007
- SIL2 according to EN61508:2001
- Cat.3: EN954-1:1996



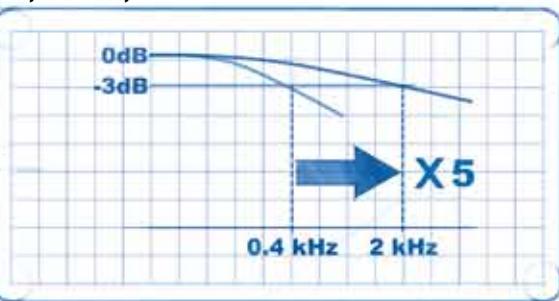
### Fast & accurate

- 5 times faster settling time -0~2 ms
- 2 kHz speed response
- Torque feed forward reduces following error

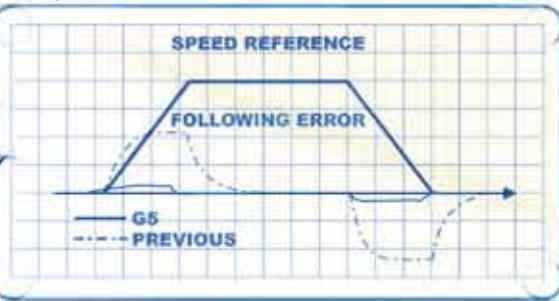
#### Settling time



#### Speed response



#### Torque feed forward



#### 100,000 hr operation in rugged industrial conditions

- No fan below 1 kW
- Long life capacitors

#### Load vibration suppression

- Up to 4 preset frequencies
- Setting frequency from 1 to 200Hz

#### Vibration suppression



JUST CREATE

# ... meets X-Stream Automation

G5 seamlessly integrates into Omron's ONE SOFTWARE - ONE MACHINE CONTROL automation architecture. It utilises Ethernet connectivity and is fully configured through the SYSMAC STUDIO. G5 also simplifies your mechanical and electrical design by including double registration input, full closed loop and multi-drive safety functionality.

## ① Built-in safety: multi-drives in a single safety relay circuit

The two safety inputs and the external device monitoring (EDM) output can be linked from one servo drive to another without using additional safety relays. Up to 8 servo drives can be connected to a single safety relay, saving hardware and wiring costs.

## ② Full closed loop

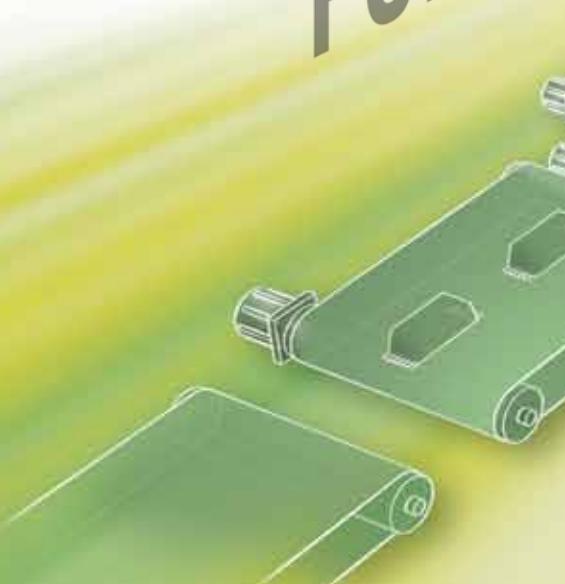
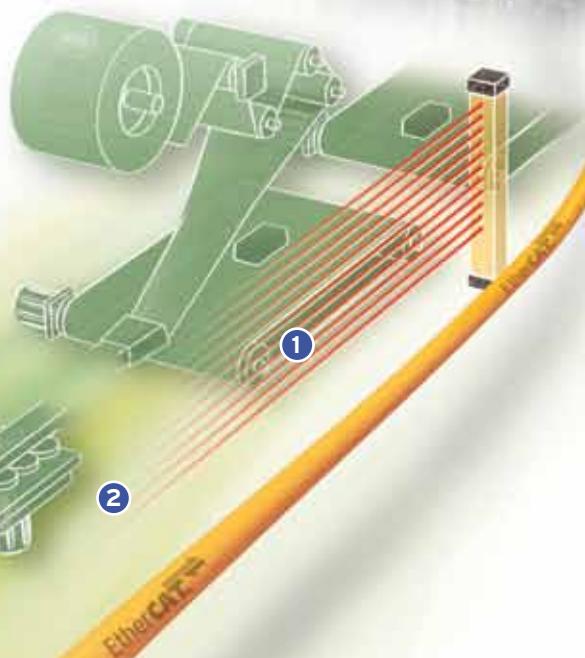
G5 has a built-in external encoder input for full closed loop operation, for when additional accuracy is required. The external encoder input eliminates the errors caused by, for example, slip in the material.

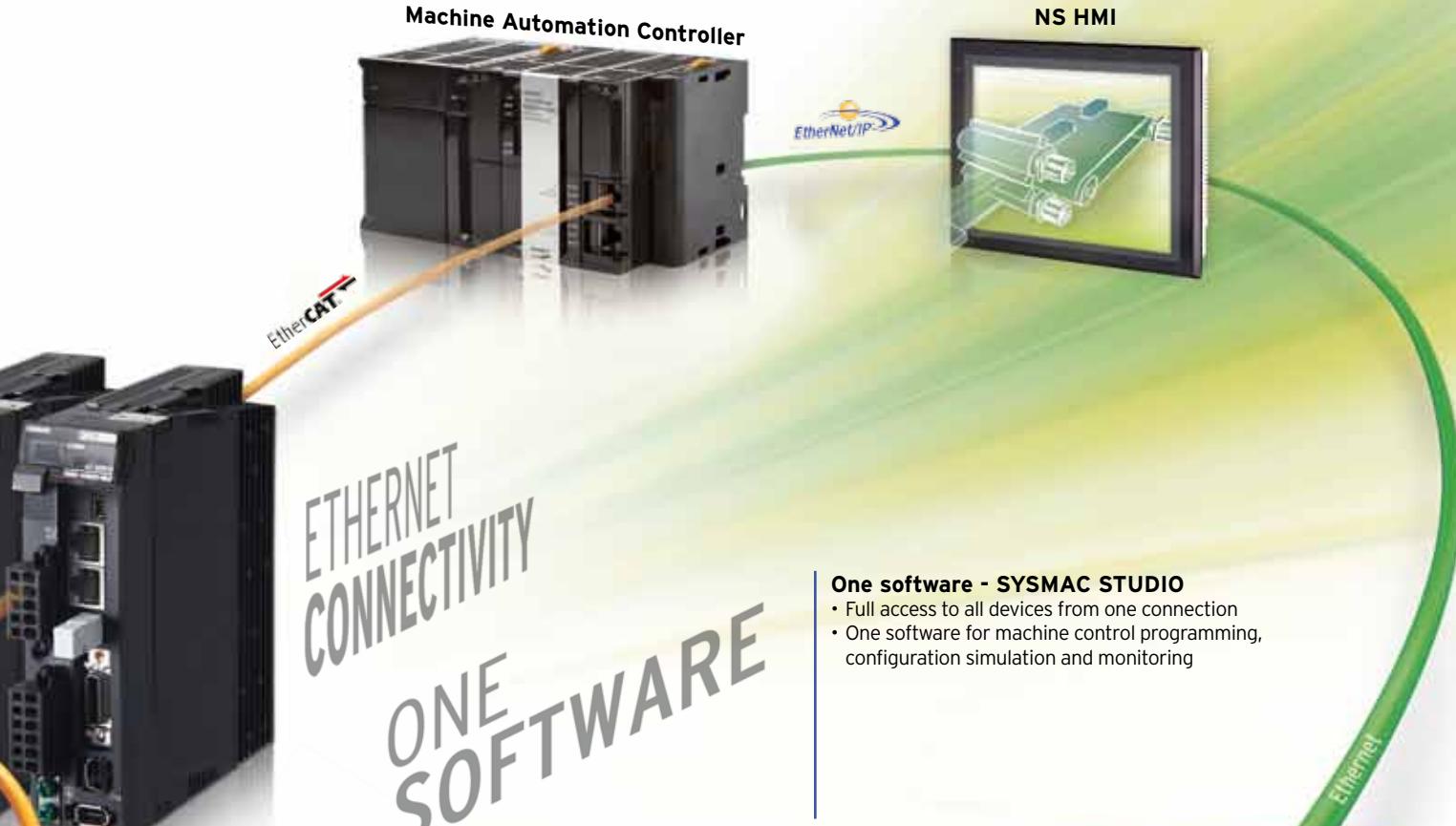
## ③ Double registration input

G5 increases application versatility by providing 2 independent registration inputs per axis, especially relevant for applications such as flow wrappers. By registering the product input position and the mark position on the film, the system can make relative corrections ensuring high accuracy with a simple mechanical design.



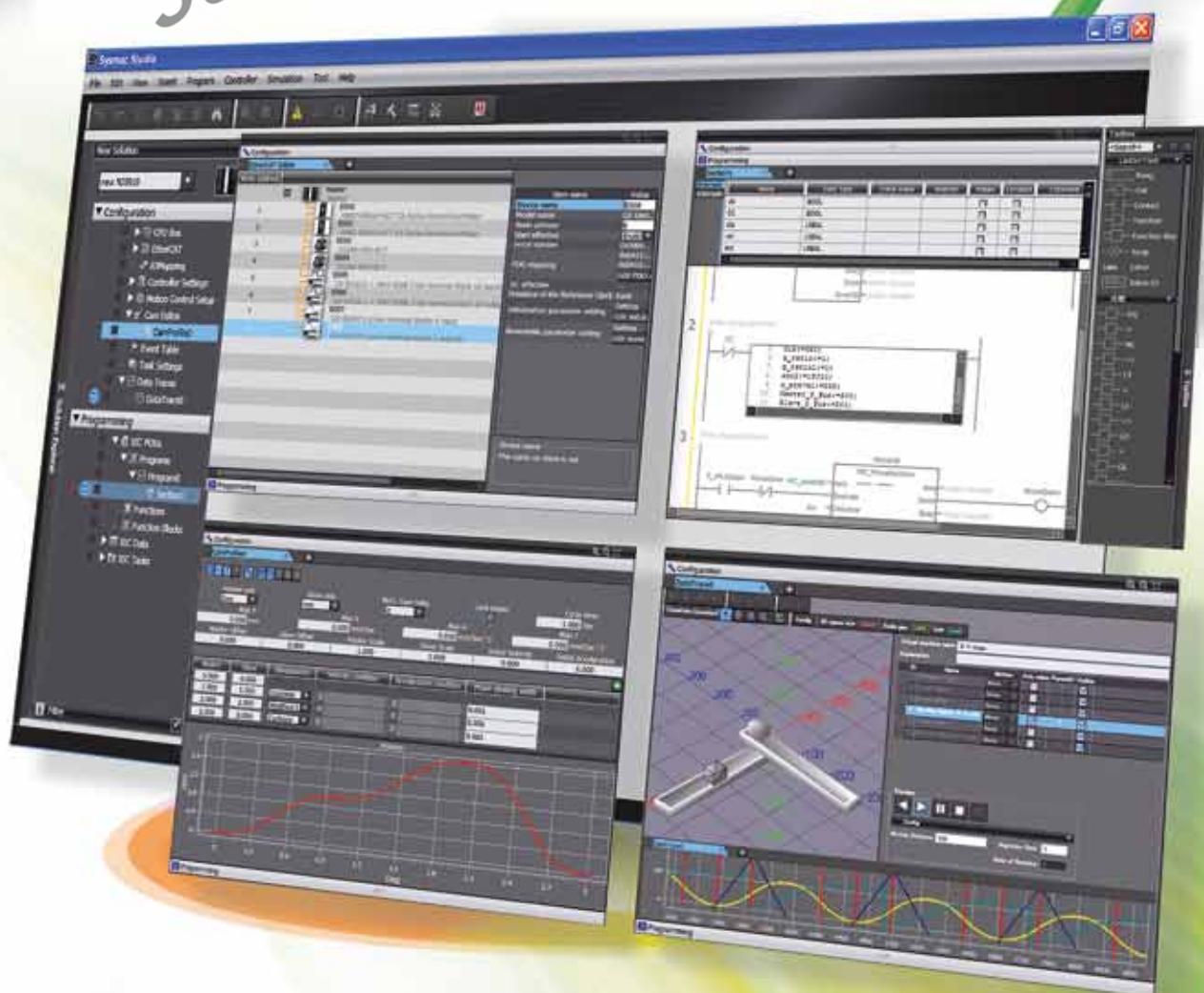
# INTEGRATED FUNCTIONALITY



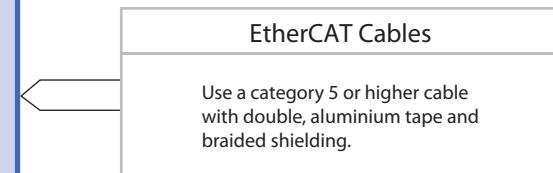
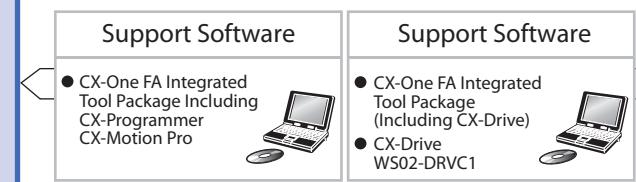
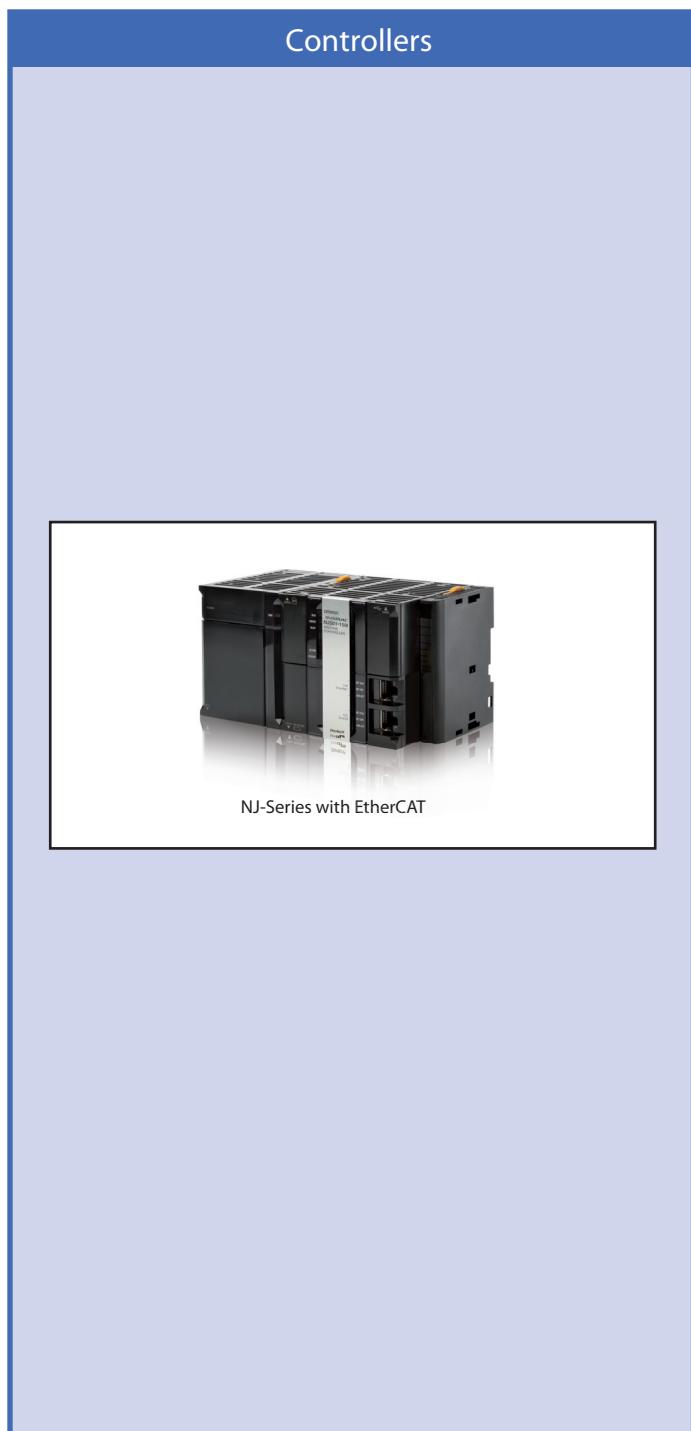


#### One software - SYSMAC STUDIO

- Full access to all devices from one connection
- One software for machine control programming, configuration simulation and monitoring

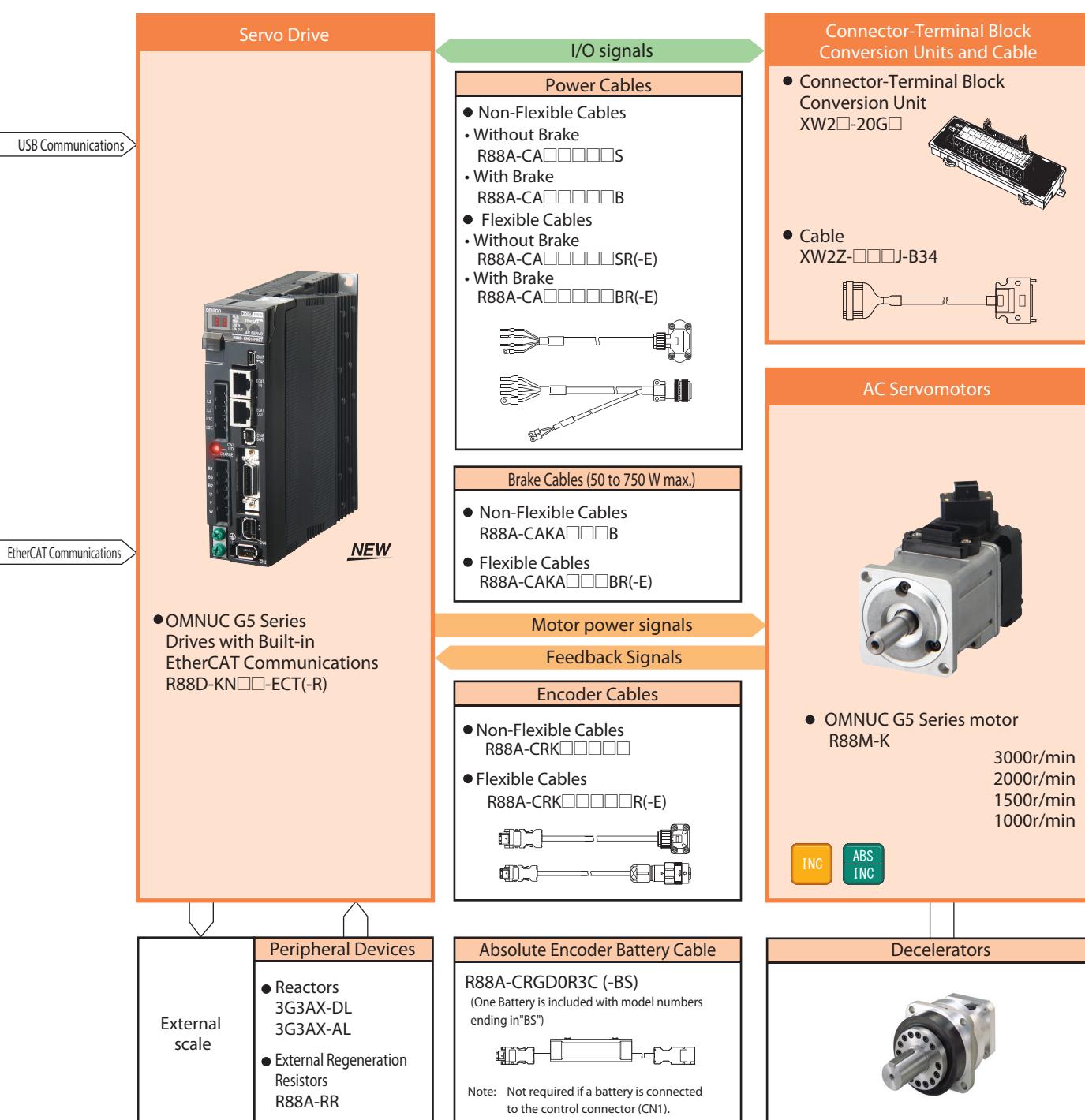


## System Configuration



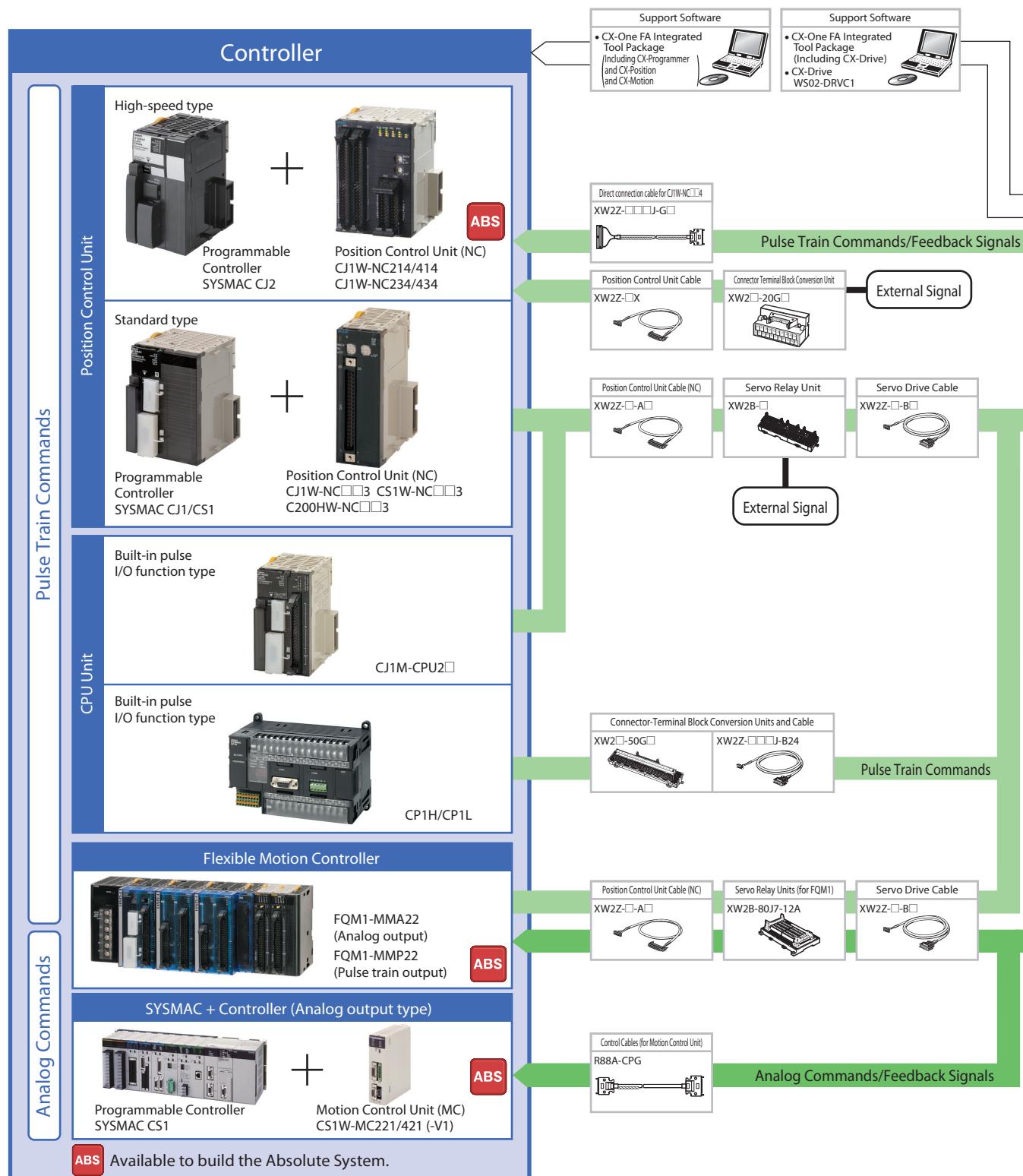
## High-Speed and High-Precision OMNUC G5 Series EtherCAT Communications with the Controller

- High-accuracy positioning with fully-closed control.
- Servo Drives for 400VAC widens applicable systems and environment, including large-scale equipment and overseas facilities.
- Safe design and Safe Torque Off (STO) function.
- Vibration can be suppressed in acceleration/deceleration even in low-rigidity mechanical systems.



# R88M-K/R88D-KT

## System Configuration



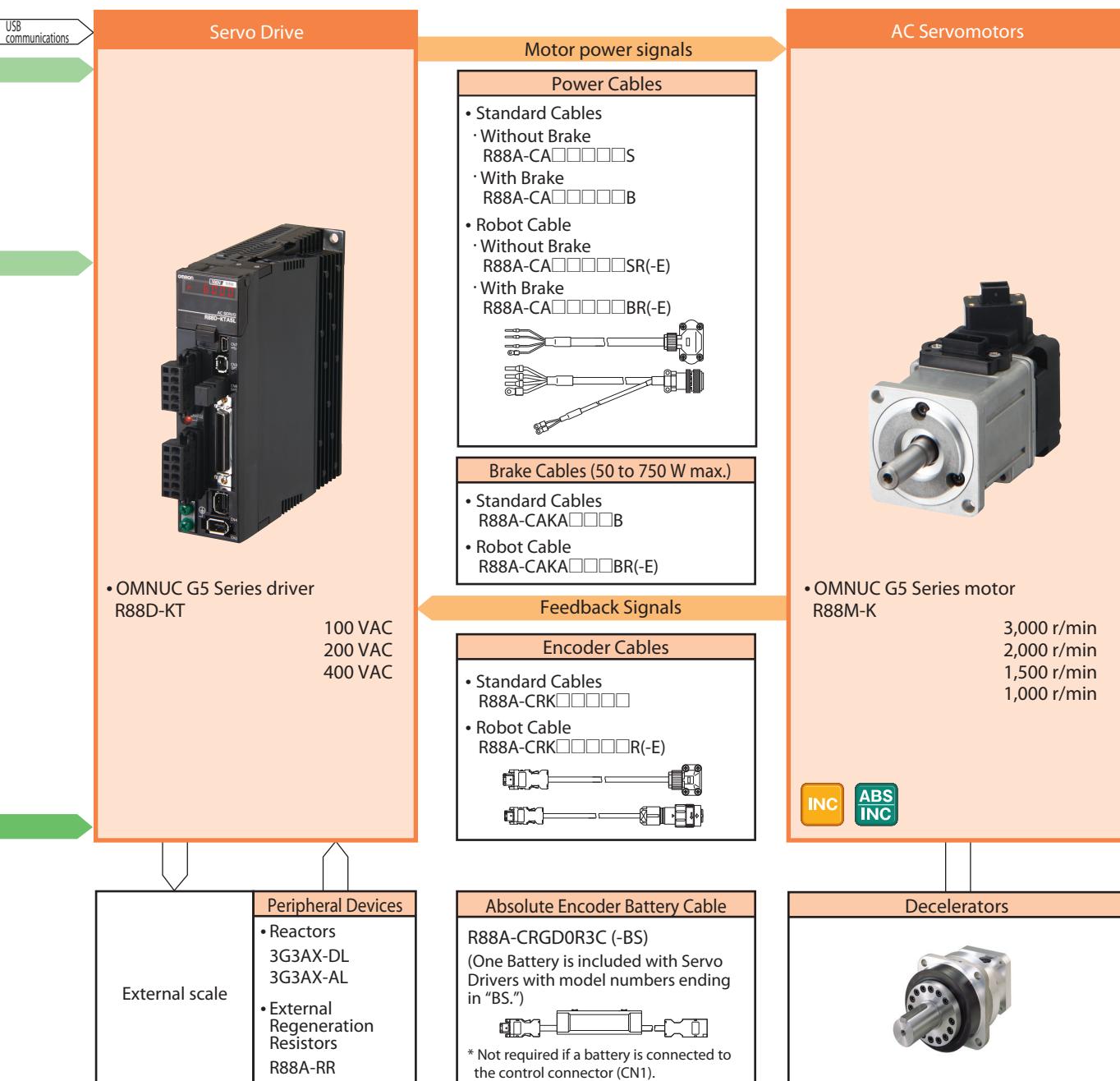
## The Preeminent Servo That Revolutionizes Motion Control



- Industry Top-class Tracking Performance.  
Speed Response Frequency of 2 kHz.
- Best Positioning Accuracy.  
Featuring a 20-bit high-resolution incremental encoder.
- High-precision Positioning.  
Fully Closed Loop Control Is a Standard Feature.
- Conforms to the Latest International Standards.  
Safety and Productivity.
- Globalization. Lineup of 400 VAC Servomotors.
- Block Programming

## Product configuration list

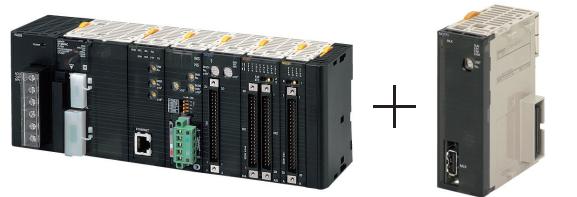
Refer to the Ordering Information.



# R88M-K/R88D-KN□-ML2

## System Configuration

### Controllers (MECHATROLINK-II type)



#### Support Software

- CX-One FA Integrated Tool Package (Including CX-Programmer and CX-Position and CX-Motion)

#### Support Software

- CX-One FA Integrated Tool Package (Including CX-Drive)
- CX-Drive WS02-DRVCI



### MECHATROLINK-II

#### MECHATROLINK-II Cables

(With ring core and USB connector on both ends)

FNY-W6003-□□ (OMRON model number)

(Without ring core USB connector on both ends)

FNY-W6002-□□ (OMRON model number)

#### MECHATROLINK-II Repeater

Maximum transmission distance		
	0 to 30 m	30 to 50 m
Number of connected devices	1 to 15	Repeater not required.
16	Repeater not required.	Repeater required.

Trajexia Machine Controller

# High-Speed and High-Precision OMNUC G5 Series MECHATROLINK-II Communications with the Controller

- Data transfer using MECHATROLINK-II (See Note 1)

## Communications:

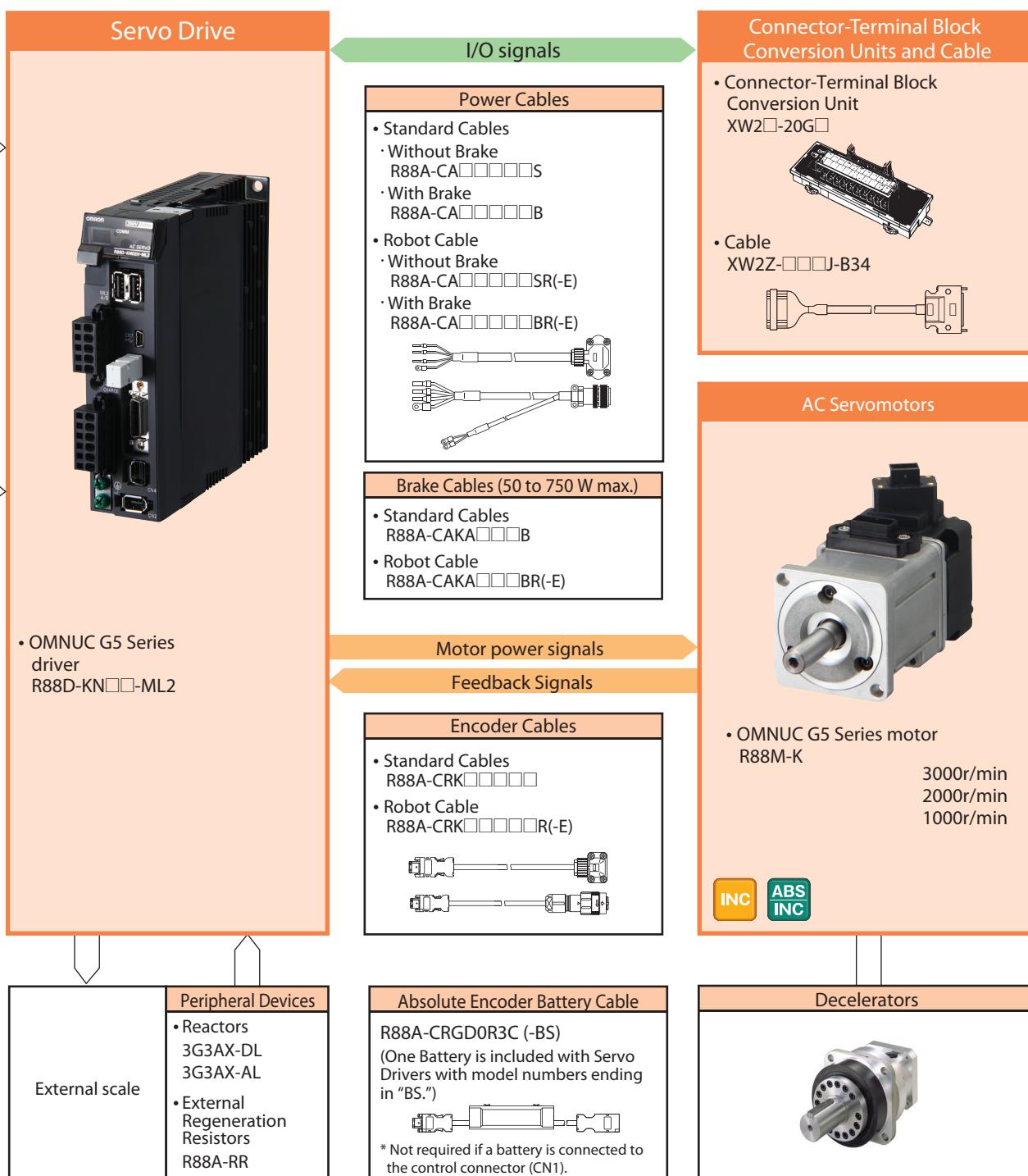
All control data that can be interfaced between the Servo Driver and the Controller is transmitted using data communications. This enables maximizing the Servomotor performance without restricting the transmission performance of the control signals.

- Having a communications module built into the Servo Driver significantly saves space in the control panel.



**Note:** 1. MECHATROLINK-II is a registered trademark of the MECHATROLINK Members Association.

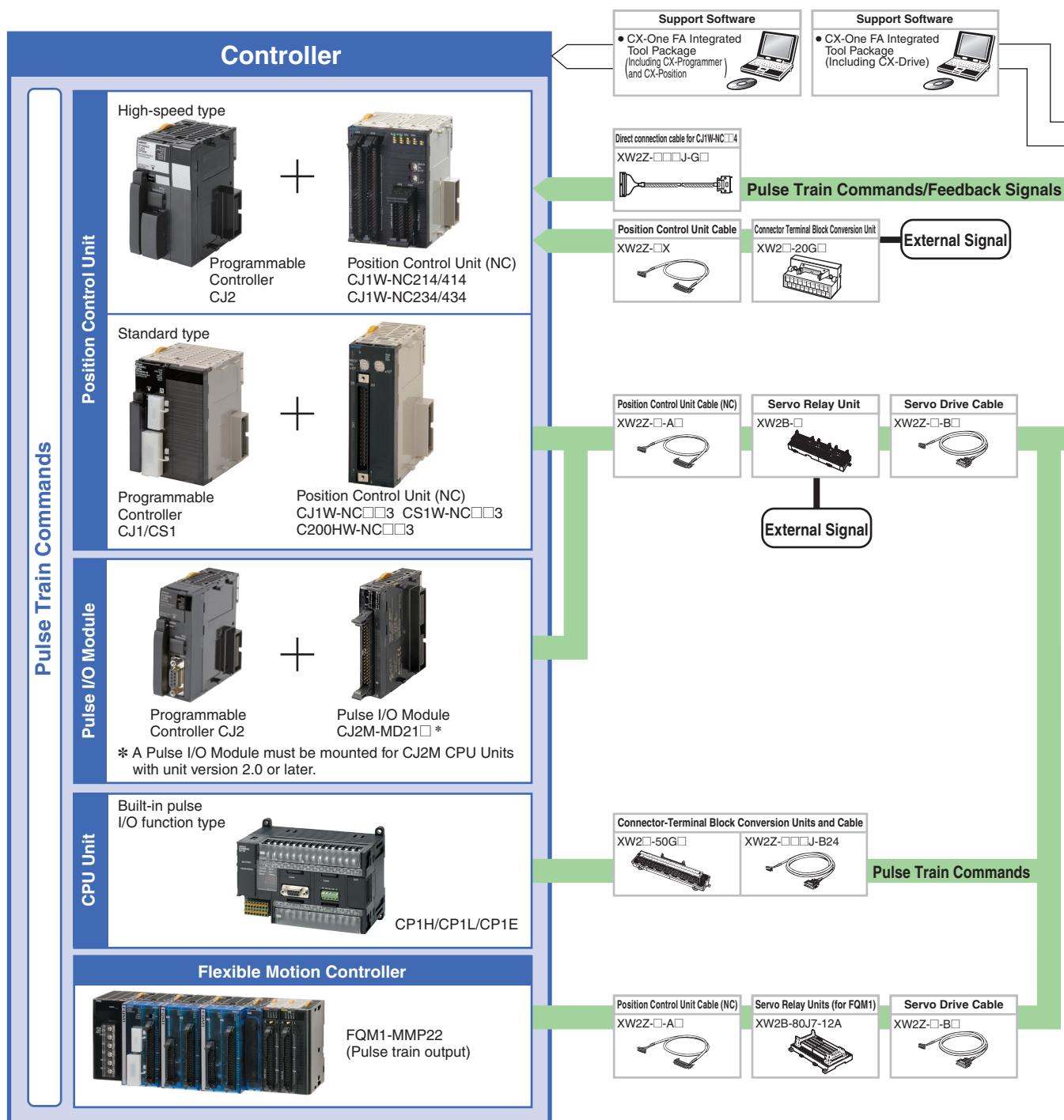
2. CX-Drive (version 1.9) support for OMNUC G5-series Servo Drivers with MECHATROLINK-II Communications can be obtained from November, 2009.



# G5-series Pulse Train Input Type AC Servomotors/Servo Drives

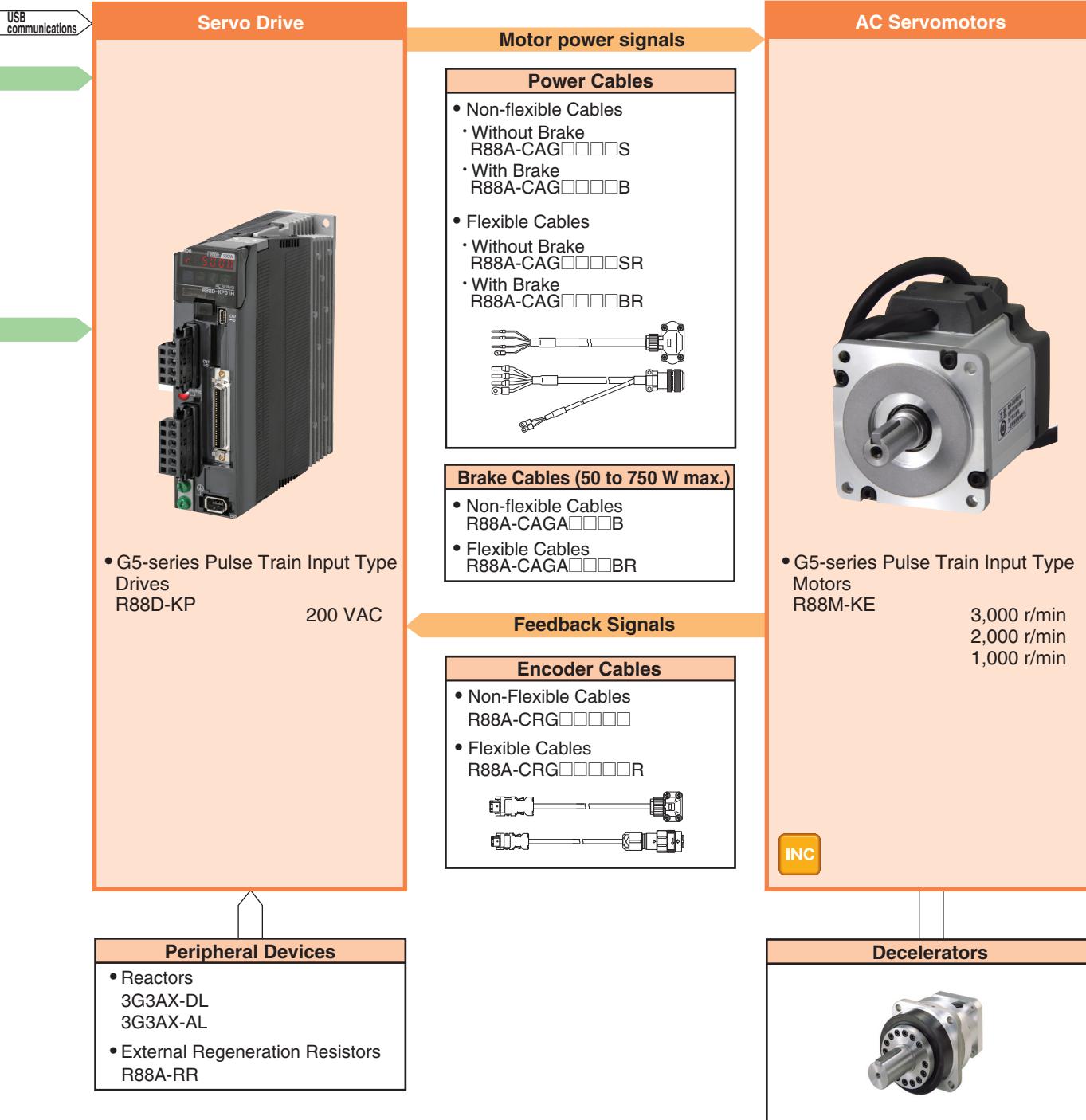
# R88M-KE/R88D-KP

## System Configuration



## High-performance Servo Optimal for positioning Application.

- Industry Top-class Tracking Performance.  
Speed Response Frequency of 2 kHz.
- Outstanding Positioning Accuracy.  
Featuring a 20-bit high-resolution incremental encoder.
- Easy Adjustment with Autotuning Function.
- Ideal for Applications That Require High Accuracy.  
Improved vibration control function.



## MEMO

## MEMO

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# Ordering Information

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Product name      AC Servomotor/Drive  
                            OMNUC G5-series

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MECHATROLINK-II is a registered trademark of the MECHATROLINK Members Association.  
EtherCAT® is a registered trademark of Beckhoff Automation GmbH.

## Interpreting Model Numbers

### Servo Drive Model Numbers

**R88D-K N 01 H -ECT**

(1)	(2)	(3)	(4)	(5)
(1) OMNUC G5-series Servo Drive				
(2) Drive Type	T	Analog input/Pulse train input type		
	N	Communication type		
(3) Maximum Applicable Servomotor Capacity	A5	50 W		
	01	100 W		
	02	200 W		
	04	400 W		
	06	600 W		
	08	750 W		
	10	1 kW		
	15	1.5 kW		
	20	2 kW		
	30	3 kW		
	40	4 kW		
	50	5 kW		
	75	7.5 kW		
	150	15 kW		
(4) Power Supply Voltage	L	100 VAC		
	H	200 VAC		
	F	400 VAC		
(5) Network type	Blank	General-purpose Inputs		
	-ML2	MECHATROLINK-II Communications		
	-ECT	EtherCAT Communications		

### Servomotor Model Numbers

**R88M-K □ 750 30 H -BO S2**

(1)	(2)	(3)	(4)	(5)	(6)
(1) OMNUC G5-series Servomotor					
(2) Motor Type	Blank	Cylinder type			
	-	-			
(3) Servomotor Capacity	050	50 W			
	100	100 W			
	200	200 W			
	400	400 W			
	600	600 W			
	750	750 W			
	900	900 W			
	1K0	1 kW			
	1K5	1.5 kW			
	2K0	2 kW			
	3K0	3 kW			
	4K0	4 kW			
	4K5	4.5 kW			
	5K0	5 kW			
	6K0	6 kW			
(4) Rated Rotation Speed	7K5	7.5 kW			
	11K0	11 kW			
	15K0	15 kW			
	10	1,000 r/min			
(5) Applied Voltage	15	1,500 r/min			
	20	2,000 r/min			
	30	3,000 r/min			
	F	400 VAC (with incremental encoder specifications)			
	H	200 VAC (with incremental encoder specifications)			
	L	100 VAC (with incremental encoder specifications)			
(6) Option	C	400 VAC (with absolute encoder specifications)			
	T	200VAC (with absolute encoder specifications)			
	S	100 VAC (with absolute encoder specifications)			
	Blank	Straight shaft			
	B	With brake			
	O	With oil seal			
	S2	With key and tap			

Note: INC incremental encoder: 20bit

ABS/INC incremental encoder: 17bit, absolute encoder: 17bit

**Understanding Decelerator Model Numbers (Backlash = 3' Max./Backlash = 15' Max.)**

Backlash = 3' Max.

**R88G-HPG 14A 05 100 S B J**

No	Item	Symbol	Specifications
(1) Decelerator for G□-Series Servomotors Backlash = 3' Max.			
(2) Flange Size Number	11B	□40	
	14A	□60	
	20A	□90	
	32A	□120	
	50A	□170	
	65A	□230	
(3) Gear Ratio	05	1/5	
	09	1/9 (only frame number 11B)	
	11	1/11 (except frame number 65A)	
	12	1/12 (only frame number 65A)	
	20	1/20 (only frame number 65A)	
	21	1/21 (except frame number 65A)	
	25	1/25 (only frame number 65A)	
	33	1/33	
(4) Applicable Servomotor Capacity	45	1/45	
	050	50 W	
	100	100 W	
	200	200 W	
	400	400 W	
	750	750 W	
	900	900 W	
	1K0	1 kW	
	1K5	1.5 kW	
	2K0	2 kW	
	3K0	3 kW	
	4K0	4 kW	
	4K5	4.5 kW	
	5K0	5 kW	
(5) Motor Type	Blank	3,000-r/min cylindrical servomotors	
	—	—	
	S	2,000-r/min cylindrical servomotors	
	T	1,000-r/min cylindrical servomotors	
(6)	Backlash	B	Backlash = 3' Max
(7) Option	Blank	Straight shaft	
	J	With key and tap	

Backlash = 15' Max.

**R88G-VRSF 09 B 100 C J**

No	Item	Symbol	Specifications
(1) Decelerator for G□-Series Servomotors Backlash = 15' Max.			
(2) Gear Ratio	05	1/5	
	09	1/9	
	15	1/15	
	25	1/25	
(3) Flange Size Number	B	□52	
	C	□78	
	D	□98	
(4) Applicable Servomotor Capacity	050	50 W	
	100	100 W	
	200	200 W	
	400	400 W	
	750	750 W	
(5) Motor Type	Blank	3,000-r/min cylindrical servomotors	
	—	—	
(6)	Backlash	C	Backlash = 15' Max
(7)	Option	J	With key (without tap)

## Table of Servomotor Variations

**R88M-K**       -

(3) (4) (5) (6) (7) (8) (9)

(3)	(4)	(5)	Model	(6)						(7)		(8)		(9)	
				Applied Voltage						With brake / Without brake		Models with oil seals		Shaft type	
				INC	INC	INC	ABS	ABS	ABS	-	B				
				F	H	L	C	T	S	Blank	With brake	Blank	O	Blank	S2
Cylinder	50 W	3,000 r/min	R88M-K05030 *1		✓			✓		✓	✓	✓	✓	✓	✓
	100 W		R88M-K10030		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
	200 W		R88M-K20030		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
	400 W		R88M-K40030		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
	750 W		R88M-K75030	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓
	1 kW		R88M-K1K030	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓
	1.5 kW		R88M-K1K530	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓
	2 kW		R88M-K2K030	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓
	3 kW		R88M-K3K030	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓
	4 kW		R88M-K4K030	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓
	5 kW		R88M-K5K030	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓
	400 W	2,000 r/min	R88M-K40020	✓			✓			✓	✓	✓	✓	✓	✓
	600 W		R88M-K60020	✓			✓			✓	✓	✓	✓	✓	✓
	1 kW		R88M-K1K020	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓
	1.5 kW		R88M-K1K520	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓
	2 kW		R88M-K2K020	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓
	3 kW		R88M-K3K020	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓
	4 kW		R88M-K4K020	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓
	5 kW		R88M-K5K020	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓
	7.5 kW		R88M-K7K515 *2				✓	✓		✓	✓	✓	✓	✓	✓
	11 kW		R88M-K11K015 *2				✓	✓		✓	✓	✓	✓	✓	✓
	15 kW		R88M-K15K015 *2				✓	✓		✓	✓	✓	✓	✓	✓
	900 W	1,000 r/min	R88M-K90010	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓
	2 kW		R88M-K2K010	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓
	3 kW		R88M-K3K010	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓
	4.5 kW		R88M-K4K510				✓	✓		✓	✓	✓	✓	✓	✓
	6 kW		R88M-K6K010				✓	✓		✓	✓	✓	✓	✓	✓
Blank: Cylinder type	example 030: 30 W 100: 100 W 1K0: 1 kW	10: 1,000 r/min 20: 2,000 r/min 30: 3,000 r/min		F: 400 VAC (with incremental encoder) <b>INC</b> H: 200 VAC (with incremental encoder) <b>INC</b> L: 100 VAC (with incremental encoder) <b>INC</b> C: 400 VAC (with absolute encoder) <b>ABS/INC</b> T: 200 VAC (with absolute encoder) <b>ABS/INC</b> S: 100 VAC (with absolute encoder) <b>ABS/INC</b>						Blank: Without brake		Blank: Without oil seals		Blank: Straight shaft	

\*1. R88M-K05030H-□, R88M-K05030T-□, can be used for Power Supply Voltage of 100/200VAC.

\*2. The rated speed is 1,500 r/min.

## Ordering Information

## AC Servo Drives

EtherCAT Communications NEW

Specifications		Model
Power Supply Voltage	Applicable Servomotor Capacity	
Single-phase 100 VAC	50 W	R88D-KNA5L-ECT
	100 W	R88D-KN01L-ECT
	200 W	R88D-KN02L-ECT
	400 W	R88D-KN04L-ECT
Single-phase/three-phase 200 VAC	100 W	R88D-KN01H-ECT
	200 W	R88D-KN02H-ECT
	400 W	R88D-KN04H-ECT
	750 W	R88D-KN08H-ECT
	1 kW	R88D-KN10H-ECT
Three-phase 200 VAC	1.5 kW	R88D-KN15H-ECT
	2 kW	R88D-KN20H-ECT
	3 kW	R88D-KN30H-ECT
	5 kW	R88D-KN50H-ECT
	7.5 kW	R88D-KN75H-ECT
Three-phase 400 VAC	15 kW	R88D-KN150H-ECT
	600 W	R88D-KN06F-ECT
	1 kW	R88D-KN10F-ECT
	1.5 kW	R88D-KN15F-ECT
	2 kW	R88D-KN20F-ECT
	3 kW	R88D-KN30F-ECT
	5 kW	R88D-KN50F-ECT
Three-phase 200 VAC	7.5 kW	R88D-KN75F-ECT
	15 kW	R88D-KN150F-ECT

## MECHATROLINK-II Communications

Specifications		Model
Power Supply Voltage	Applicable Servomotor Capacity	
Single-phase 100 VAC	50 W	R88D-KNA5L-ML2
	100 W	R88D-KN01L-ML2
	200 W	R88D-KN02L-ML2
	400 W	R88D-KN04L-ML2
Single-phase/three-phase 200 VAC	100 W	R88D-KN01H-ML2
	200 W	R88D-KN02H-ML2
	400 W	R88D-KN04H-ML2
	750 W	R88D-KN08H-ML2
	1 kW	R88D-KN10H-ML2
Three-phase 200 VAC	1.5 kW	R88D-KN15H-ML2
	2 kW	R88D-KN20H-ML2
	3 kW	R88D-KN30H-ML2
	5 kW	R88D-KN50H-ML2
	600 W	R88D-KN06F-ML2
Three-phase 400 VAC	1 kW	R88D-KN10F-ML2
	1.5 kW	R88D-KN15F-ML2
	2 kW	R88D-KN20F-ML2
	3 kW	R88D-KN30F-ML2
	5 kW	R88D-KN50F-ML2

General-purpose Inputs  
(Analog input/Pulse train input type)

Specifications		Model
Power Supply Voltage	Applicable Servomotor Capacity	
Single-phase 100 VAC	50 W	R88D-KTA5L
	100 W	R88D-KT01L
	200 W	R88D-KT02L
	400 W	R88D-KT04L
Single-phase/three-phase 200 VAC	100 W	R88D-KT01H
	200 W	R88D-KT02H
	400 W	R88D-KT04H
	750 W	R88D-KT08H
	1 kW	R88D-KT10H
Three-phase 200 VAC	1.5 kW	R88D-KT15H
	2 kW	R88D-KT20H
	3 kW	R88D-KT30H
	5 kW	R88D-KT50H
	7.5 kW	R88D-KT75H <u>NEW</u>
Three-phase 400 VAC	15 kW	R88D-KT150H <u>NEW</u>
	600 W	R88D-KT06F
	1 kW	R88D-KT10F
	1.5 kW	R88D-KT15F
	2 kW	R88D-KT20F
	3 kW	R88D-KT30F
	5 kW	R88D-KT50F
Three-phase 200 VAC	7.5 kW	R88D-KT75F <u>NEW</u>
	15 kW	R88D-KT150F <u>NEW</u>

## Servomotors

### <Cylinder Type>

#### ● 3,000-r/min servomotors

Rotation speed	Encoder	Option
3,000 r/min	INC	Without key
	ABS/INC	With key

Specifications	Model	
	With incremental encoder	
	Straight shaft without key	
Voltage	Rated output	Without oil seals
Without brake	100 V	50 W R88M-K05030H
		100 W R88M-K10030L
		200 W R88M-K20030L
		400 W R88M-K40030L
	200 V	50 W R88M-K05030H
		100 W R88M-K10030H
		200 W R88M-K20030H
		400 W R88M-K40030H
		750 W R88M-K75030H
		1 kW R88M-K1K030H
		1.5 kW R88M-K1K530H
		2 kW R88M-K2K030H
		3 kW R88M-K3K030H
		4 kW R88M-K4K030H
		5 kW R88M-K5K030H
	400 V	750 W R88M-K75030F
		1 kW R88M-K1K030F
		1.5 kW R88M-K1K530F
		2 kW R88M-K2K030F
		3 kW R88M-K3K030F
		4 kW R88M-K4K030F
With brake	100 V	50 W R88M-K05030H-B
		100 W R88M-K10030L-B
		200 W R88M-K20030L-B
		400 W R88M-K40030L-B
	200 V	50 W R88M-K05030H-B
		100 W R88M-K10030H-B
		200 W R88M-K20030H-B
		400 W R88M-K40030H-B
		750 W R88M-K75030H-B
		1 kW R88M-K1K030H-B
		1.5 kW R88M-K1K530H-B
		2 kW R88M-K2K030H-B
		3 kW R88M-K3K030H-B
		4 kW R88M-K4K030H-B
		5 kW R88M-K5K030H-B
	400 V	750 W R88M-K75030F-B
		1 kW R88M-K1K030F-B
		1.5 kW R88M-K1K530F-B
		2 kW R88M-K2K030F-B
		3 kW R88M-K3K030F-B
		4 kW R88M-K4K030F-B
		5 kW R88M-K5K030F-B

**Note:** Models with oil seals are also available.

Rotation speed	Encoder	Option
3,000 r/min	INC	Without key
	ABS/INC	With key

Specifications	Model	
	With incremental encoder	
	Straight shaft with key and tap	
Voltage	Rated output	Without oil seals
Without brake	100 V	50 W R88M-K05030H-S2
		100 W R88M-K10030L-S2
		200 W R88M-K20030L-S2
		400 W R88M-K40030L-S2
	200 V	50 W R88M-K05030H-S2
		100 W R88M-K10030H-S2
		200 W R88M-K20030H-S2
		400 W R88M-K40030H-S2
		750 W R88M-K75030H-S2
		1 kW R88M-K1K030H-S2
		1.5 kW R88M-K1K530H-S2
		2 kW R88M-K2K030H-S2
		3 kW R88M-K3K030H-S2
		4 kW R88M-K4K030H-S2
		5 kW R88M-K5K030H-S2
	400 V	750 W R88M-K75030F-S2
		1 kW R88M-K1K030F-S2
		1.5 kW R88M-K1K530F-S2
		2 kW R88M-K2K030F-S2
		3 kW R88M-K3K030F-S2
		4 kW R88M-K4K030F-S2
With brake	100 V	50 W R88M-K05030H-BS2
		100 W R88M-K10030L-BS2
		200 W R88M-K20030L-BS2
		400 W R88M-K40030L-BS2
	200 V	50 W R88M-K05030H-BS2
		100 W R88M-K10030H-BS2
		200 W R88M-K20030H-BS2
		400 W R88M-K40030H-BS2
		750 W R88M-K75030H-BS2
		1 kW R88M-K1K030H-BS2
		1.5 kW R88M-K1K530H-BS2
		2 kW R88M-K2K030H-BS2
		3 kW R88M-K3K030H-BS2
		4 kW R88M-K4K030H-BS2
		5 kW R88M-K5K030H-BS2
	400 V	750 W R88M-K75030F-BS2
		1 kW R88M-K1K030F-BS2
		1.5 kW R88M-K1K530F-BS2
		2 kW R88M-K2K030F-BS2
		3 kW R88M-K3K030F-BS2
		4 kW R88M-K4K030F-BS2
		5 kW R88M-K5K030F-BS2

**Note:** Models with oil seals are also available.

Rotation speed	Encoder	Option
3,000 r/min	INC	Without key
	ABS/INC	With key

Rotation speed	Encoder	Option
3,000 r/min	INC	Without key
	ABS/INC	With key

Specifications		Model	
		With absolute encoder	
		Straight shaft without key	
Voltage		Without oil seals	
Without brake	100 V	50 W	R88M-K05030T
		100 W	R88M-K10030S
		200 W	R88M-K20030S
		400 W	R88M-K40030S
	200 V	50 W	R88M-K05030T
		100 W	R88M-K10030T
		200 W	R88M-K20030T
		400 W	R88M-K40030T
		750 W	R88M-K75030T
		1 kW	R88M-K1K030T
		1.5 kW	R88M-K1K530T
		2 kW	R88M-K2K030T
		3 kW	R88M-K3K030T
		4 kW	R88M-K4K030T
		5 kW	R88M-K5K030T
	400 V	750 W	R88M-K75030C
		1 kW	R88M-K1K030C
		1.5 kW	R88M-K1K530C
		2 kW	R88M-K2K030C
		3 kW	R88M-K3K030C
		4 kW	R88M-K4K030C
		5 kW	R88M-K5K030C
With brake	100 V	50 W	R88M-K05030T-B
		100 W	R88M-K10030S-B
		200 W	R88M-K20030S-B
		400 W	R88M-K40030S-B
	200 V	50 W	R88M-K05030T-B
		100 W	R88M-K10030T-B
		200 W	R88M-K20030T-B
		400 W	R88M-K40030T-B
		750 W	R88M-K75030T-B
		1 kW	R88M-K1K030T-B
		1.5 kW	R88M-K1K530T-B
		2 kW	R88M-K2K030T-B
		3 kW	R88M-K3K030T-B
		4 kW	R88M-K4K030T-B
		5 kW	R88M-K5K030T-B
	400 V	750 W	R88M-K75030C-B
		1 kW	R88M-K1K030C-B
		1.5 kW	R88M-K1K530C-B
		2 kW	R88M-K2K030C-B
		3 kW	R88M-K3K030C-B
		4 kW	R88M-K4K030C-B
		5 kW	R88M-K5K030C-B

**Note:** Models with oil seals are also available.

Specifications		Model	
		With absolute encoder	
		Straight shaft with key and tap	
Voltage		Without oil seals	
Without brake	100 V	50 W	R88M-K05030T-S2
		100 W	R88M-K10030S-S2
		200 W	R88M-K20030S-S2
		400 W	R88M-K40030S-S2
	200 V	50 W	R88M-K05030T-S2
		100 W	R88M-K10030T-S2
		200 W	R88M-K20030T-S2
		400 W	R88M-K40030T-S2
		750 W	R88M-K75030T-S2
		1 kW	R88M-K1K030T-S2
		1.5 kW	R88M-K1K530T-S2
		2 kW	R88M-K2K030T-S2
		3 kW	R88M-K3K030T-S2
		4 kW	R88M-K4K030T-S2
		5 kW	R88M-K5K030T-S2
	400 V	750 W	R88M-K75030C-S2
		1 kW	R88M-K1K030C-S2
		1.5 kW	R88M-K1K530C-S2
		2 kW	R88M-K2K030C-S2
		3 kW	R88M-K3K030C-S2
		4 kW	R88M-K4K030C-S2
		5 kW	R88M-K5K030C-S2
With brake	100 V	50 W	R88M-K05030T-BS2
		100 W	R88M-K10030S-BS2
		200 W	R88M-K20030S-BS2
		400 W	R88M-K40030S-BS2
	200 V	50 W	R88M-K05030T-BS2
		100 W	R88M-K10030T-BS2
		200 W	R88M-K20030T-BS2
		400 W	R88M-K40030T-BS2
		750 W	R88M-K75030T-BS2
		1 kW	R88M-K1K030T-BS2
		1.5 kW	R88M-K1K530T-BS2
		2 kW	R88M-K2K030T-BS2
		3 kW	R88M-K3K030T-BS2
		4 kW	R88M-K4K030T-BS2
		5 kW	R88M-K5K030T-BS2
	400 V	750 W	R88M-K75030C-BS2
		1 kW	R88M-K1K030C-BS2
		1.5 kW	R88M-K1K530C-BS2
		2 kW	R88M-K2K030C-BS2
		3 kW	R88M-K3K030C-BS2
		4 kW	R88M-K4K030C-BS2
		5 kW	R88M-K5K030C-BS2

**Note:** Models with oil seals are also available.

# AC Servomotor/Drive OMNUC G5-series

## ● 2,000-r/min servomotors

Rotation speed	Encoder	Option
2,000 r/min	INC	Without key
	ABS/INC	With key

Rotation speed	Encoder	Option
2,000 r/min	INC	Without key
	ABS/INC	With key

Specifications	Model	
	With incremental encoder	
	Straight shaft without key	
Voltage	Rated output	Without oil seals
Without brake	200 V	1 kW R88M-K1K020H
		1.5 kW R88M-K1K520H
		2 kW R88M-K2K020H
		3 kW R88M-K3K020H
		4 kW R88M-K4K020H
		5 kW R88M-K5K020H
	400 V	400 W R88M-K40020F
		600 W R88M-K60020F
		1 kW R88M-K1K020F
		1.5 kW R88M-K1K520F
		2 kW R88M-K2K020F
		3 kW R88M-K3K020F
		4 kW R88M-K4K020F
		5 kW R88M-K5K020F
With brake	200 V	1 kW R88M-K1K020H-B
		1.5 kW R88M-K1K520H-B
		2 kW R88M-K2K020H-B
		3 kW R88M-K3K020H-B
		4 kW R88M-K4K020H-B
		5 kW R88M-K5K020H-B
	400 V	400 W R88M-K40020F-B
		600 W R88M-K60020F-B
		1 kW R88M-K1K020F-B
		1.5 kW R88M-K1K520F-B
		2 kW R88M-K2K020F-B
		3 kW R88M-K3K020F-B
		4 kW R88M-K4K020F-B
		5 kW R88M-K5K020F-B

**Note:** Models with oil seals are also available.

Specifications	Model	
	With incremental encoder	
	Straight shaft with key and tap	
Voltage	Rated output	Without oil seals
Without brake	200 V	1 kW R88M-K1K020H-S2
		1.5 kW R88M-K1K520H-S2
		2 kW R88M-K2K020H-S2
		3 kW R88M-K3K020H-S2
		4 kW R88M-K4K020H-S2
		5 kW R88M-K5K020H-S2
	400 V	400 W R88M-K40020F-S2
		600 W R88M-K60020F-S2
		1 kW R88M-K1K020F-S2
		1.5 kW R88M-K1K520F-S2
		2 kW R88M-K2K020F-S2
		3 kW R88M-K3K020F-S2
		4 kW R88M-K4K020F-S2
		5 kW R88M-K5K020F-S2
With brake	200 V	1 kW R88M-K1K020H-BS2
		1.5 kW R88M-K1K520H-BS2
		2 kW R88M-K2K020H-BS2
		3 kW R88M-K3K020H-BS2
		4 kW R88M-K4K020H-BS2
		5 kW R88M-K5K020H-BS2
	400 V	400 W R88M-K40020F-BS2
		600 W R88M-K60020F-BS2
		1 kW R88M-K1K020F-BS2
		1.5 kW R88M-K1K520F-BS2
		2 kW R88M-K2K020F-BS2
		3 kW R88M-K3K020F-BS2
		4 kW R88M-K4K020F-BS2
		5 kW R88M-K5K020F-BS2

**Note:** Models with oil seals are also available.

Rotation speed	Encoder	Option
2,000 r/min	INC	Without key
	ABS/INC	With key

Rotation speed	Encoder	Option
2,000 r/min	INC	Without key
	ABS/INC	With key

Specifications		Model	
		With absolute encoder	
		Straight shaft without key	
Voltage		Without oil seals	
Without brake	200 V	1 kW	R88M-K1K020T
		1.5 kW	R88M-K1K520T
		2 kW	R88M-K2K020T
		3 kW	R88M-K3K020T
		4 kW	R88M-K4K020T
		5 kW	R88M-K5K020T
		7.5 kW	R88M-K7K515T * <u>NEW</u>
		11 kW	R88M-K11K015T * <u>NEW</u>
	400 V	15 kW	R88M-K15K015T * <u>NEW</u>
		400 W	R88M-K40020C
		600 W	R88M-K60020C
		1 kW	R88M-K1K020C
		1.5 kW	R88M-K1K520C
		2 kW	R88M-K2K020C
		3 kW	R88M-K3K020C
With brake	200 V	4 kW	R88M-K4K020C
		5 kW	R88M-K5K020C
		7.5 kW	R88M-K7K515C * <u>NEW</u>
		11 kW	R88M-K11K015C * <u>NEW</u>
		15 kW	R88M-K15K015C * <u>NEW</u>
	400 V	1 kW	R88M-K1K020T-B
		1.5 kW	R88M-K1K520T-B
		2 kW	R88M-K2K020T-B
		3 kW	R88M-K3K020T-B
		4 kW	R88M-K4K020T-B
		5 kW	R88M-K5K020T-B
		7.5 kW	R88M-K7K515T-B * <u>NEW</u>

**Note:** Models with oil seals are also available.

\* The rated speed is 1,500 r/min.

Specifications		Model	
		With absolute encoder	
		Straight shaft with key and tap	
Voltage		Without oil seals	
Without brake	200 V	1 kW	R88M-K1K020T-S2
		1.5 kW	R88M-K1K520T-S2
		2 kW	R88M-K2K020T-S2
		3 kW	R88M-K3K020T-S2
		4 kW	R88M-K4K020T-S2
		5 kW	R88M-K5K020T-S2
		7.5 kW	R88M-K7K515T-S2 * <u>NEW</u>
		11 kW	R88M-K11K015T-S2 * <u>NEW</u>
	400 V	15 kW	R88M-K15K015T-S2 * <u>NEW</u>
		400 W	R88M-K40020C-S2
		600 W	R88M-K60020C-S2
		1 kW	R88M-K1K020C-S2
		1.5 kW	R88M-K1K520C-S2
		2 kW	R88M-K2K020C-S2
		3 kW	R88M-K3K020C-S2
With brake	200 V	4 kW	R88M-K4K020C-S2
		5 kW	R88M-K5K020C-S2
		7.5 kW	R88M-K7K515C-S2 * <u>NEW</u>
		11 kW	R88M-K11K015C-S2 * <u>NEW</u>
		15 kW	R88M-K15K015C-S2 * <u>NEW</u>
	400 V	1 kW	R88M-K1K020T-BS2
		1.5 kW	R88M-K1K520T-BS2
		2 kW	R88M-K2K020T-BS2
		3 kW	R88M-K3K020T-BS2
		4 kW	R88M-K4K020T-BS2
		5 kW	R88M-K5K020T-BS2
		7.5 kW	R88M-K7K515T-BS2 * <u>NEW</u>

**Note:** Models with oil seals are also available.

\* The rated speed is 1,500 r/min.

# AC Servomotor/Drive OMNUC G5-series

## ● 1,000-r/min servomotors

Rotation speed	Encoder	Option
1,000 r/min	INC	Without key
	ABS/INC	With key

Rotation speed	Encoder	Option
1,000 r/min	INC	Without key
	ABS/INC	With key

Specifications		Model	
		With incremental encoder	
		Straight shaft without key	
Voltage		Without oil seals	
Without brake	200 V	900 W	R88M-K90010H
		2 kW	R88M-K2K010H
		3 kW	R88M-K3K010H
	400 V	900 W	R88M-K90010F
		2 kW	R88M-K2K010F
		3 kW	R88M-K3K010F
With brake	200 V	900 W	R88M-K90010H-B
		2 kW	R88M-K2K010H-B
		3 kW	R88M-K3K010H-B
	400 V	900 W	R88M-K90010F-B
		2 kW	R88M-K2K010F-B
		3 kW	R88M-K3K010F-B

Note: Models with oil seals are also available.

Specifications		Model	
		With incremental encoder	
		Straight shaft with key and tap	
Voltage		Without oil seals	
Without brake	200 V	900 W	R88M-K90010H-S2
		2 kW	R88M-K2K010H-S2
		3 kW	R88M-K3K010H-S2
	400 V	900 W	R88M-K90010F-S2
		2 kW	R88M-K2K010F-S2
		3 kW	R88M-K3K010F-S2
With brake	200 V	900 W	R88M-K90010H-BS2
		2 kW	R88M-K2K010H-BS2
		3 kW	R88M-K3K010H-BS2
	400 V	900 W	R88M-K90010F-BS2
		2 kW	R88M-K2K010F-BS2
		3 kW	R88M-K3K010F-BS2

Note: Models with oil seals are also available.

Rotation speed	Encoder	Option
1,000 r/min	INC	Without key
	ABS/INC	With key

Rotation speed	Encoder	Option
1,000 r/min	INC	Without key
	ABS/INC	With key

Specifications		Model	
		With absolute encoder	
		Straight shaft without key	
Voltage		Without oil seals	
Without brake	200 V	900 W	R88M-K90010T
		2 kW	R88M-K2K010T
		3 kW	R88M-K3K010T
	400 V	4.5 kW	R88M-K4K510T <i>NEW</i>
		6 kW	R88M-K6K010T <i>NEW</i>
		900 W	R88M-K90010C
With brake	200 V	2 kW	R88M-K2K010C
		3 kW	R88M-K3K010C
		4.5 kW	R88M-K4K510C <i>NEW</i>
	400 V	6 kW	R88M-K6K010C <i>NEW</i>
		900 W	R88M-K90010T-B
		2 kW	R88M-K2K010T-B
With brake	200 V	3 kW	R88M-K3K010T-B
		4.5 kW	R88M-K4K510T-B <i>NEW</i>
		6 kW	R88M-K6K010T-B <i>NEW</i>
	400 V	900 W	R88M-K90010C-B
		2 kW	R88M-K2K010C-B
		3 kW	R88M-K3K010C-B
		4.5 kW	R88M-K4K510C-B <i>NEW</i>
		6 kW	R88M-K6K010C-B <i>NEW</i>

Note: Models with oil seals are also available.

Specifications		Model	
		With absolute encoder	
		Straight shaft with key and tap	
Voltage		Without oil seals	
Without brake	200 V	900 W	R88M-K90010T-S2
		2 kW	R88M-K2K010T-S2
		3 kW	R88M-K3K010T-S2
	400 V	4.5 kW	R88M-K4K510T-S2 <i>NEW</i>
		6 kW	R88M-K6K010T-S2 <i>NEW</i>
		900 W	R88M-K90010C-S2
With brake	200 V	2 kW	R88M-K2K010C-S2
		3 kW	R88M-K3K010C-S2
		4.5 kW	R88M-K4K510C-S2 <i>NEW</i>
	400 V	6 kW	R88M-K6K010C-S2 <i>NEW</i>
		900 W	R88M-K90010T-BS2
		2 kW	R88M-K2K010T-BS2
With brake	200 V	3 kW	R88M-K3K010T-BS2
		4.5 kW	R88M-K4K510T-BS2 <i>NEW</i>
		6 kW	R88M-K6K010T-BS2 <i>NEW</i>
	400 V	900 W	R88M-K90010C-BS2
		2 kW	R88M-K2K010C-BS2
		3 kW	R88M-K3K010C-BS2
		4.5 kW	R88M-K4K510C-BS2 <i>NEW</i>
		6 kW	R88M-K6K010C-BS2 <i>NEW</i>

Note: Models with oil seals are also available.

## Decelerators (Backlash = 3' Max./Backlash = 15' Max.)

Backlash = 3' Max

<Cylinder Type>

● 3,000-r/min servomotors

Straight shaft without key

Motor capacity	Gear Ratio	Model (Straight shaft)
50 W	1/5	R88G-HPG11B05100B
	1/9	R88G-HPG11B09050B
	1/21	R88G-HPG14A21100B
	1/33	R88G-HPG14A33050B
	1/45	R88G-HPG14A45050B
100 W	1/5	R88G-HPG11B05100B
	1/11	R88G-HPG14A11100B
	1/21	R88G-HPG14A21100B
	1/33	R88G-HPG20A33100B
	1/45	R88G-HPG20A45100B
200 W	1/5	R88G-HPG14A05200B
	1/11	R88G-HPG14A11200B
	1/21	R88G-HPG20A21200B
	1/33	R88G-HPG20A33200B
	1/45	R88G-HPG20A45200B
400 W	1/5	R88G-HPG14A05400B
	1/11	R88G-HPG20A11400B
	1/21	R88G-HPG20A21400B
	1/33	R88G-HPG32A33400B
	1/45	R88G-HPG32A45400B
750 W (200 V)	1/5	R88G-HPG20A05750B
	1/11	R88G-HPG20A11750B
	1/21	R88G-HPG32A21750B
	1/33	R88G-HPG32A33750B
	1/45	R88G-HPG32A45750B
750W (400 V)	1/5	R88G-HPG32A052K0B
	1/11	R88G-HPG32A112K0B
	1/21	R88G-HPG32A211K5B
	1/33	R88G-HPG32A33600SB
	1/45	R88G-HPG50A451K5B
1kW	1/5	R88G-HPG32A052K0B
	1/11	R88G-HPG32A112K0B
	1/21	R88G-HPG32A211K5B
	1/33	R88G-HPG50A332K0B
	1/45	R88G-HPG50A451K5B
1.5kW	1/5	R88G-HPG32A052K0B
	1/11	R88G-HPG32A112K0B
	1/21	R88G-HPG32A211K5B
	1/33	R88G-HPG50A332K0B
	1/45	R88G-HPG50A451K5B
2kW	1/5	R88G-HPG32A052K0B
	1/11	R88G-HPG32A112K0B
	1/21	R88G-HPG50A212K0B
	1/33	R88G-HPG65A232K0B
	1/45	R88G-HPG65A255K0B
3kW	1/5	R88G-HPG32A053K0B
	1/11	R88G-HPG50A113K0B
	1/21	R88G-HPG50A213K0B
	1/33	R88G-HPG65A205K0B
	1/45	R88G-HPG65A255K0B
4kW	1/5	R88G-HPG32A054K0B
	1/11	R88G-HPG50A115K0B
	1/20	R88G-HPG65A205K0B
	1/25	R88G-HPG65A255K0B
	1/5	R88G-HPG50A055K0B
5kW	1/11	R88G-HPG50A115K0B
	1/20	R88G-HPG65A205K0B
	1/25	R88G-HPG65A255K0B
	1/5	R88G-HPG50A055K0B
	1/11	R88G-HPG50A115K0B

Note: 1. The standard models have a straight shaft.

2. To order a Servomotor with a straight shaft with key, add "J" to the end of the model number, in the place indicated by the box.

### ● 2,000-r/min servomotors

Straight shaft without key

Motor capacity	Gear Ratio	Model (Straight shaft)
400 W	1/5	R88G-HPG32A052K0B
	1/11	R88G-HPG32A112K0B
	1/21	R88G-HPG32A211K5B
	1/33	R88G-HPG32A33600SB
	1/45	R88G-HPG32A45400SB
600 W	1/5	R88G-HPG32A052K0B
	1/11	R88G-HPG32A112K0B
	1/21	R88G-HPG32A211K5B
	1/33	R88G-HPG32A33600SB
	1/45	R88G-HPG50A451K5B
1 kW	1/5	R88G-HPG32A053K0B
	1/11	R88G-HPG32A112K0SB
	1/21	R88G-HPG32A211K0SB
	1/33	R88G-HPG50A332K0SB
	1/45	R88G-HPG50A451K0SB
1.5 kW	1/5	R88G-HPG32A053K0B
	1/11	R88G-HPG32A112K0SB
	1/21	R88G-HPG50A213K0B
	1/33	R88G-HPG50A332K0SB
2 kW	1/5	R88G-HPG32A053K0B
	1/11	R88G-HPG32A112K0SB
	1/21	R88G-HPG50A213K0B
	1/33	R88G-HPG65A332K0SB
3 kW	1/5	R88G-HPG32A054K0B
	1/11	R88G-HPG50A115K0B
	1/21	R88G-HPG50A213K0SB
	1/25	R88G-HPG65A255K0SB
4 kW	1/5	R88G-HPG50A055K0SB
	1/11	R88G-HPG50A115K0SB
	1/20	R88G-HPG65A205K0SB
	1/25	R88G-HPG65A255K0SB
5 kW	1/5	R88G-HPG50A055K0SB
	1/11	R88G-HPG50A115K0SB
	1/20	R88G-HPG65A205K0SB
	1/25	R88G-HPG65A255K0SB

Note: 1. The standard models have a straight shaft.

2. To order a Servomotor with a straight shaft with key, add "J" to the end of the model number, in the place indicated by the box.

● 1,000-r/min servomotors

**Straight shaft without key**

Motor capacity	Gear Ratio	Model (Straight shaft)
900 W	1/5	R88G-HPG32A053K0B
	1/11	R88G-HPG32A112K0SB
	1/21	R88G-HPG50A213K0B
	1/33	R88G-HPG50A332K0SB
2 kW	1/5	R88G-HPG32A052K0TB
	1/11	R88G-HPG50A112K0TB
	1/21	R88G-HPG50A212K0TB
	1/25	R88G-HPG65A255K0SB
3 kW	1/5	R88G-HPG50A055K0SB
	1/11	R88G-HPG50A115K0SB
	1/20	R88G-HPG65A205K0SB
	1/25	R88G-HPG65A255K0SB

**Note:** 1. The standard models have a straight shaft.  
 2. To order a Servomotor with a straight shaft with key, add "J" to the end of the model number, in the place indicated by the box.

**Backlash = 15' Max  
<Cylinder Type>**

● 3,000-r/min servomotors

**Straight shaft with key**

Motor capacity	Gear Ratio	Model (Straight shaft)
50 W	1/5	R88G-VRSF05B100CJ
	1/9	R88G-VRSF09B100CJ
	1/15	R88G-VRSF15B100CJ
	1/25	R88G-VRSF25B100CJ
100 W	1/5	R88G-VRSF05B100CJ
	1/9	R88G-VRSF09B100CJ
	1/15	R88G-VRSF15B100CJ
	1/25	R88G-VRSF25B100CJ
200 W	1/5	R88G-VRSF05B200CJ
	1/9	R88G-VRSF09B200CJ
	1/15	R88G-VRSF15B200CJ
	1/25	R88G-VRSF25B200CJ
400 W	1/5	R88G-VRSF05C400CJ
	1/9	R88G-VRSF09C400CJ
	1/15	R88G-VRSF15C400CJ
	1/25	R88G-VRSF25C400CJ
750 W	1/5	R88G-VRSF05C750CJ
	1/9	R88G-VRSF09D750CJ
	1/15	R88G-VRSF15D750CJ
	1/25	R88G-VRSF25D750CJ

## Accessories and Cables

### ■ Connection Cables (Power Cables, Brake Cables, Encoder Cables)

#### <Standard Cables>

##### Power cable

Specifications	Without brake		With brake
	Model	Model	Model
[100 V/200 V] 3,000-r/min Servomotors of 50 to 750 W	3 m	R88A-CAKA003S	
	5 m	R88A-CAKA005S	
	10 m	R88A-CAKA010S	
	15 m	R88A-CAKA015S	
	20 m	R88A-CAKA020S	
	30 m	R88A-CAKA030S	
	40 m	R88A-CAKA040S	
	50 m	R88A-CAKA050S	
[200 V] 3,000-r/min Servomotors of 1 to 2 kW 2,000-r/min Servomotors of 1 to 2 kW 1,000-r/min Servomotors of 900 W	3 m	R88A-CAGB003S	R88A-CAGB003B
	5 m	R88A-CAGB005S	R88A-CAGB005B
	10 m	R88A-CAGB010S	R88A-CAGB010B
	15 m	R88A-CAGB015S	R88A-CAGB015B
	20 m	R88A-CAGB020S	R88A-CAGB020B
	30 m	R88A-CAGB030S	R88A-CAGB030B
	40 m	R88A-CAGB040S	R88A-CAGB040B
	50 m	R88A-CAGB050S	R88A-CAGB050B
[400 V] 3,000-r/min Servomotors of 750 W to 2 kW 2,000-r/min Servomotors of 400 W to 2 kW 1,000-r/min Servomotors of 900 W	3 m	R88A-CAGB003S	R88A-CAKF003B
	5 m	R88A-CAGB005S	R88A-CAKF005B
	10 m	R88A-CAGB010S	R88A-CAKF010B
	15 m	R88A-CAGB015S	R88A-CAKF015B
	20 m	R88A-CAGB020S	R88A-CAKF020B
	30 m	R88A-CAGB030S	R88A-CAKF030B
	40 m	R88A-CAGB040S	R88A-CAKF040B
	50 m	R88A-CAGB050S	R88A-CAKF050B
[200 V] [400 V] 3,000-r/min Servomotors of 3 to 5 kW 2,000-r/min Servomotors of 3 to 5 kW 1,000-r/min Servomotors of 2 to 4.5 kW	3 m	R88A-CAGD003S	R88A-CAGD003B
	5 m	R88A-CAGD005S	R88A-CAGD005B
	10 m	R88A-CAGD010S	R88A-CAGD010B
	15 m	R88A-CAGD015S	R88A-CAGD015B
	20 m	R88A-CAGD020S	R88A-CAGD020B
	30 m	R88A-CAGD030S	R88A-CAGD030B
	40 m	R88A-CAGD040S	R88A-CAGD040B
	50 m	R88A-CAGD050S	R88A-CAGD050B
[200 V] [400 V] 2,000-r/min Servomotors of 7.5 kW 1,000-r/min Servomotors of 6 kW	3 m	R88A-CAGE003S	
	5 m	R88A-CAGE005S	
	10 m	R88A-CAGE010S	
	15 m	R88A-CAGE015S	
	20 m	R88A-CAGE020S	
	30 m	R88A-CAGE030S	
	40 m	R88A-CAGE040S	
	50 m	R88A-CAGE050S	

**Note:** 1. Different connectors are used for the motor power and the brake on 100-V and 200-V, 3,000-r/min Servomotors of 50 to 750 W and Servomotors of 6 to 15 kW. When using a Servomotor with a brake, two cables are required: a Power Cable without Brake and a Brake Cable.

2. For non-flexible power cables for Servomotors of 11 or 15 kW, refer to the relevant manuals of G5-Series and make your own cable.

# AC Servomotor/Drive OMNUC G5-series

## Brake Cable

Specifications	Standard Cables	
	Model	
[100 V][200 V] 3,000-r/min Servomotors of 50 to 750 W	3 m	R88A-CAKA003B
	5 m	R88A-CAKA005B
	10 m	R88A-CAKA010B
	15 m	R88A-CAKA015B
	20 m	R88A-CAKA020B
	30 m	R88A-CAKA030B
	40 m	R88A-CAKA040B
	50 m	R88A-CAKA050B
[200 V][400 V] 1,500-r/min Servomotors of 7.5 to 15 kW 1,000-r/min Servomotors of 6 kW	3 m	R88A-CAGE003B
	5 m	R88A-CAGE005B
	10 m	R88A-CAGE010B
	15 m	R88A-CAGE015B
	20 m	R88A-CAGE020B
	30 m	R88A-CAGE030B
	40 m	R88A-CAGE040B
	50 m	R88A-CAGE050B

## Encoder Cable

Specifications	Standard Cables	
	Model	
[100 V/200 V] 3,000-r/min Servomotors of 50 to 750 W	3 m	R88A-CRKA003C
	5 m	R88A-CRKA005C
	10 m	R88A-CRKA010C
	15 m	R88A-CRKA015C
	20 m	R88A-CRKA020C
	30 m	R88A-CRKA030C
	40 m	R88A-CRKA040C
	50 m	R88A-CRKA050C
[100 V and 200 V] 3,000-r/min Servomotors of 1.0 kW or more 2,000-r/min Servomotors 1,500-r/min Servomotors 1,000-r/min Servomotors [400 V] 3,000-r/min Servomotors 2,000-r/min Servomotors 1,500-r/min Servomotors 1,000-r/min Servomotors	3 m	R88A-CRKC003N
	5 m	R88A-CRKC005N
	10 m	R88A-CRKC010N
	15 m	R88A-CRKC015N
	20 m	R88A-CRKC020N
	30 m	R88A-CRKC030N
	40 m	R88A-CRKC040N
	50 m	R88A-CRKC050N

## &lt;Robot Cables&gt;

## Power cable

Specifications	Without brake		With brake
	Model	Model	Model
[100 V/200 V] 3,000-r/min Servomotors of 50 to 750 W	3 m	R88A-CAKA003SR(-E)	<b>Note:</b> Separate connectors for power and brakes for 3,000-r/min Servomotors of 50 to 750W. When a Servomotor with a brake is used, it is necessary to use both a PowerCable for Servomotors without brakes and Power cable.
	5 m	R88A-CAKA005SR(-E)	
	10 m	R88A-CAKA010SR(-E)	
	15 m	R88A-CAKA015SR(-E)	
	20 m	R88A-CAKA020SR(-E)	
	30 m	R88A-CAKA030SR	
	40 m	R88A-CAKA040SR	
	50 m	R88A-CAKA050SR	
[200 V] 3,000-r/min Servomotors of 1 to 2 kW 2,000-r/min Servomotors of 1 to 2 kW 1,000-r/min Servomotors of 900 W	3 m	R88A-CAGB003SR(-E)	R88A-CAGB003BR(-E)
	5 m	R88A-CAGB005SR(-E)	R88A-CAGB005BR(-E)
	10 m	R88A-CAGB010SR(-E)	R88A-CAGB010BR(-E)
	15 m	R88A-CAGB015SR(-E)	R88A-CAGB015BR(-E)
	20 m	R88A-CAGB020SR(-E)	R88A-CAGB020BR(-E)
	30 m	R88A-CAGB030SR	R88A-CAGB030BR
	40 m	R88A-CAGB040SR	R88A-CAGB040BR
	50 m	R88A-CAGB050SR	R88A-CAGB050BR
[400 V] 3,000-r/min Servomotors of 750 W to 2 kW 2,000-r/min Servomotors of 400 W to 2 kW 1,000-r/min Servomotors of 900 W	3 m	R88A-CAGB003SR(-E)	R88A-CAKF003BR(-E)
	5 m	R88A-CAGB005SR(-E)	R88A-CAKF005BR(-E)
	10 m	R88A-CAGB010SR(-E)	R88A-CAKF010BR(-E)
	15 m	R88A-CAGB015SR(-E)	R88A-CAKF015BR(-E)
	20 m	R88A-CAGB020SR(-E)	R88A-CAKF020BR(-E)
	30 m	R88A-CAGB030SR	R88A-CAKF030BR
	40 m	R88A-CAGB040SR	R88A-CAKF040BR
	50 m	R88A-CAGB050SR	R88A-CAKF050BR
[200 V] [400 V] 3,000-r/min Servomotors of 3 to 5 kW 2,000-r/min Servomotors of 3 to 5 kW 1,000-r/min Servomotors of 2 to 4.5 kW	3 m	R88A-CAGD003SR(-E)	R88A-CAGD003BR(-E)
	5 m	R88A-CAGD005SR(-E)	R88A-CAGD005BR(-E)
	10 m	R88A-CAGD010SR(-E)	R88A-CAGD010BR(-E)
	15 m	R88A-CAGD015SR(-E)	R88A-CAGD015BR(-E)
	20 m	R88A-CAGD020SR(-E)	R88A-CAGD020BR(-E)
	30 m	R88A-CAGD030SR	R88A-CAGD030BR
	40 m	R88A-CAGD040SR	R88A-CAGD040BR
	50 m	R88A-CAGD050SR	R88A-CAGD050BR
[200 V and 400 V] 1,500-r/min Servomotors of 7.5 kW 1,000-r/min Servomotors of 6 kW	3 m	R88A-CAGE003SR	<b>Note:</b> Separate connectors for power and brakes for 1,500-r/min Servomotors of 7.5 to 15.0kW and 1,000-r/min Servomotors of 6.0kW. When a Servomotor with a brake is used, it is necessary to use both a PowerCable for Servomotors without brakes and Power cable.
	5 m	R88A-CAGE005SR	
	10 m	R88A-CAGE010SR	
	15 m	R88A-CAGE015SR	
	20 m	R88A-CAGE020SR	
	30 m	R88A-CAGE030SR	
	40 m	R88A-CAGE040SR	
	50 m	R88A-CAGE050SR	

**Note:** 1. Different connectors are used for the motor power and the brake on 100-V and 200-V, 3,000-r/min Servomotors of 50 to 750 W and Servomotors of 6 to 15 kW. When using a Servomotor with a brake, two cables are required: a Power Cable without Brake and a Brake Cable.

**Note:** 2. For flexible power cables for Servomotors of 6 to 15 kW, refer to the relevant manuals of G5-Series and make your own cable.

# AC Servomotor/Drive OMNUC G5-series

## Brake Cable

Specifications		Robot Cables
		Model
<b>[100 V/200 V] 3,000-r/min Servomotors of 50 to 750 W</b>	<b>3 m</b>	R88A-CAKA003BR(-E)
	<b>5 m</b>	R88A-CAKA005BR(-E)
	<b>10 m</b>	R88A-CAKA010BR(-E)
	<b>15 m</b>	R88A-CAKA015BR(-E)
	<b>20 m</b>	R88A-CAKA020BR(-E)
	<b>30 m</b>	R88A-CAKA030BR
	<b>40 m</b>	R88A-CAKA040BR
	<b>50 m</b>	R88A-CAKA050BR

**Note:** For flexible brake cables for Servomotors of 6 to 15 kW, refer to the relevant manuals of G5-Series and make your own brake cable.

## Encoder Cable

Specifications		Robot Cables
		Model
<b>[100 V/200 V] 3,000-r/min Servomotors of 50 to 750 W</b>	<b>3 m</b>	R88A-CRKA003CR(-E)
	<b>5 m</b>	R88A-CRKA005CR(-E)
	<b>10 m</b>	R88A-CRKA010CR(-E)
	<b>15 m</b>	R88A-CRKA015CR(-E)
	<b>20 m</b>	R88A-CRKA020CR(-E)
	<b>30 m</b>	R88A-CRKA030CR
	<b>40 m</b>	R88A-CRKA040CR
	<b>50 m</b>	R88A-CRKA050CR
	<b>3 m</b>	R88A-CRKC003NR(-E)
	<b>5 m</b>	R88A-CRKC005NR(-E)
<b>[200 V] 3,000-r/ min Servomotors of 1 to 5 kW [400 V] 3,000-r/ min Servomotors of 750 W to 5 kW [200 V and 400 V] 2,000-r/min Servomotors 1,500-r/min Servomotors 1,000-r/min Servomotors</b>	<b>10 m</b>	R88A-CRKC010NR(-E)
	<b>15 m</b>	R88A-CRKC015NR(-E)
	<b>20 m</b>	R88A-CRKC020NR(-E)
	<b>30 m</b>	R88A-CRKC030NR
	<b>40 m</b>	R88A-CRKC040NR
	<b>50 m</b>	R88A-CRKC050NR

**■ Cable/Connector****Absolute Encoder Backup Battery & Absolute Encoder Battery Cable**

Description		Length	model
Absolute Encoder Battery Cable	Without Backup Battery	0.3 m	R88A-CRGD0R3C
	With Backup Battery	0.3 m	R88A-CRGD0R3C-BS
Absolute Encoder Backup Battery (2,000 mA · 3.6 V)		-	R88A-BAT01G

**Cables**

Description		Length	model
Analog Monitor Cables		1 m	R88A-CMK001S
General Purpose Control I/O Cables (CN1)	Analog/Pulse Train Input Servodrive (R88D-KT□)	1 m	R88A-CPG001S
		2 m	R88A-CPG002S
	Network Communications Servodrive (R88D-KN□)	1 m	R88A-CPKB001S-AP
		2 m	R88A-CPKB002S-AP
External encoder cable (CN4)		5 m	R88A-CRKM005SR-E
		10 m	R88A-CRKM010SR-E
		20 m	R88A-CRKM020SR-E
Safety Connecting Cable (CN8)		3 m	R88A-CSK003S-E

**Servo Drive Connectors**

Description		Connects to	Model
Control I/O Connector	Analog/Pulse Train Input Servodrive (R88D-KT□)	CN1	R88A-CNU11C
	Network Communications Servodrive (R88D-KN□)	CN1	R88A-CNW01C
Main Circuit Power Supply Connector	[100VAC] 50W-400W [200VAC] 100W-1.5kW	CNA	R88A-CNA02G-AP
	[400VAC] 600W-1.5kW	CNA	R88A-CNA01K-AP
	[200VAC] 2.0kW	CNA	R88A-CNA02K-AP
	[400VAC] 2.0kW	CNA	R88A-CNA03K-AP
Servomotor Power Connector	[100VAC] 50W-400W [200VAC] 100W-1.5kW	CNB	R88A-CNB01G-AP
	[400VAC] 600W-1.5kW	CNB	R88A-CNB01K-AP
	[200VAC] 2.0kW [400VAC] 2.0kW	CNB	R88A-CNB02K-AP
24Vdc Control Circuit Connector	[400VAC] 600W-2.0kW	CNC	R88A-CNC01K-AP
Regenerative Resistor Connector	[400VAC] 600W-1.5kW	CND	R88A-CND01K-AP
	[200VAC] 2.0kW [400VAC] 2.0kW	CND	R88A-CND02K-AP
Servomotor Encoder Connector		CN2	R88A-CNW01R
External Encoder Connector		CN4	R88A-CNK41L
Safety I/O Signal Connector		CN8	R88A-CNK81S

**Servomotor Connectors**

Description	Applicable Servomotor Capacity	Model
	[100 V/200 V] 3,000 r/min (50 to 750 W)	R88A-CNK02R
Servomotor Encoder Connector	[100 V/200 V] 3,000 r/min (1 to 5 kW), 2,000 r/min, 1,000 r/min [400 V] 3,000 r/min, 2,000 r/min, 1,000 r/min	R88A-CNK04R
	[100 V/200 V] 3,000 r/min (50 to 750 W)	R88A-CNK11A
Power Cable Connector	[200 V] [400V] 1,000 r/min (6 kW), 1,500 r/min (7.5 to 15kW)	R88A-CNK21A-AP
	[100 V/200 V] 3,000 r/min (50 to 750 W)	R88A-CNK11B
Brake Cable Connector	[200 V] [400V] 1,000 r/min (6 kW), 1,500 r/min (7.5 to 15kW)	R88A-CNK21B-AP

■ Control Cables

Control Cables (for Connector Terminal Block/CN1)

Name	Specifications		Model	
Connector Terminal Block Cables	General-purpose Input	Length 1.0 m	XW2Z-100J-B24	
		Length 2.0 m	XW2Z-200J-B24	
	MECHATROLINK-II Communications	Length 1.0 m	XW2Z-100J-B34	
	EtherCAT Communications	Length 2.0 m	XW2Z-200J-B34	
Connector Terminal Block Conversion Unit	General-purpose Input	Conversion Unit for General-purpose Controllers (M3 screws)	Through type	XW2B-50G4
		Conversion Unit for General-purpose Controllers (M3.5 screws)	Through type	XW2B-50G5
		Conversion Unit for General-purpose Controllers (M3 screws)	Slim type	XW2D-50G6
	MECHATROLINK-II Communications	Conversion Unit for General-purpose Controllers (M3 screws)	Through type	XW2B-20G4
		Conversion Unit for General-purpose Controllers (M3.5 screws)	Through type	XW2B-20G5
		Conversion Unit for General-purpose Controllers (M3 screws)	Slim type	XW2D-20G6

● General-purpose Inputs (Analog input/Pulse train input type)

Connection Cables (for CN1)

Specifications		The number of axes	Length	Model
Name	Unit			
Position Control Unit (High-speed type) for Line-driver output	CJ1W-NC234/434	for 1 axis	1 m	XW2Z-100J-G9
			5 m	XW2Z-500J-G9
			10 m	XW2Z-10MJ-G9
		for 2 axis	1 m	XW2Z-100J-G1
			5 m	XW2Z-500J-G1
			10 m	XW2Z-10MJ-G1
Position Control Unit (High-speed type) for Open collector output	CJ1W-NC214/NC414	for 1 axis	1 m	XW2Z-100J-G13
			3 m	XW2Z-300J-G13
		for 2 axis	1 m	XW2Z-100J-G5
			3 m	XW2Z-300J-G5
Control Cables for Motion Control Unit	CS1W-MC221 (-V1) CS1W-MC421 (-V1)	for 1 axis	1 m	R88A-CPG001M1
			2 m	R88A-CPG002M1
			3 m	R88A-CPG003M1
			5 m	R88A-CPG005M1
		for 2 axis	1 m	R88A-CPG001M2
			2 m	R88A-CPG002M2
			3 m	R88A-CPG003M2
			5 m	R88A-CPG005M2
			1 m	R88A-CPG001S
			2 m	R88A-CPG002S
General-purpose Control Cables with Connector on One End	Cables for General-purpose Controllers	–		

Device for External Signal Connection / Connecting Cables (for CJ1W-NC□□4)

Name		Specifications		Model
Connector Terminal Block Cables	Connection Cables	Normal wiring	Length 0.5 m	XW2Z-C50X
			Length 1.0 m	XW2Z-100X
			Length 2.0 m	XW2Z-200X
			Length 3.0 m	XW2Z-300X
			Length 5.0 m	XW2Z-500X
			Length 10.0 m	XW2Z-010X
Connector Terminal Block Conversion Unit	20 pin M2.4 screw Terminal Block type	Through type	XW2B-20G4	
	20 pin M3.5 screw Terminal Block type	Through type	XW2B-20G5	
	20 pin M3 screw Terminal Block type	Slim type	XW2D-20G6	

**Servo Relay Units (for CN1)**

Specifications	The number of axes	Model
Position Control Unit: For CJ1W-NC113/NC133 For CS1W-NC113/NC133 For C200HW-NC113	for 1 axis	<b>XW2B-20J6-1B</b>
Position Control Unit: For CJ1W-NC213/NC233/NC413/NC433 For CS1W-NC213/NC233/NC413/NC433 For C200HW-NC213/NC413	for 2 axis	<b>XW2B-40J6-2B</b>
For CJ1M-CPU21/CPU22/CPU23	for 1 axis	<b>XW2B-20J6-8A</b>
	for 2 axis	<b>XW2B-40J6-9A</b>
For FQM1-MMA22 (Analog output) For FQM1-MMP22 (Pulse train output)	for 2 axis	<b>XW2B-80J7-12A</b>
For CQM1H-PLB21	for 1 axis	<b>XW2B-20J6-3B</b>

**Servo Relay Unit cable (for Servo Drive/CN1)**

Specifications	Length	Model
Position Control Unit: For CJ1W-NC□□□3□	1 m	<b>XW2Z-100J-B25</b>
For CS1W/C200HW-NC□□□□ (XW2B-20J6-1B, XW2B-40J6-2B) For CQM1H-PLB21 (XW2B-20J6-3B)	2 m	<b>XW2Z-200J-B25</b>
For CJ1M-CPU21/CPU22/CPU23 (XW2B-20J6-8A, XW2B-40J6-9A)	1 m	<b>XW2Z-100J-B31</b>
	2 m	<b>XW2Z-200J-B31</b>
For FQM1-MMA22 (Analog output) (XW2B-80J7-12A)	1 m	<b>XW2Z-100J-B27</b>
	2 m	<b>XW2Z-200J-B27</b>
For FQM1-MMP22 (Pulse train output) (XW2B-80J7-12A)	1 m	<b>XW2Z-100J-B26</b>
	2 m	<b>XW2Z-200J-B26</b>

**Servo Relay Unit cable (Position Control Unit)**

Specifications	The number of axes	Length	Model
CJ1W line-driver output type For CJ1W-NC133 (XW2B-20J6-1B)	for 1 axis	0.5 m	<b>XW2Z-050J-A18</b>
		1 m	<b>XW2Z-100J-A18</b>
CJ1W line-driver output type For CJ1W-NC233/NC433 (XW2B-40J6-2B)	for 2 axis	0.5 m	<b>XW2Z-050J-A19</b>
		1 m	<b>XW2Z-100J-A19</b>
CS1W line-driver output type For CS1W-NC133 (XW2B-20J6-1B)	for 1 axis	0.5 m	<b>XW2Z-050J-A10</b>
		1 m	<b>XW2Z-100J-A10</b>
CS1W line-driver output type For CS1W-NC233/NC433 (XW2B-40J6-2B)	for 2 axis	0.5 m	<b>XW2Z-050J-A11</b>
		1 m	<b>XW2Z-100J-A11</b>
CJ1W open collector output type For CJ1W-NC113 (XW2B-20J6-1B)	for 1 axis	0.5 m	<b>XW2Z-050J-A14</b>
		1 m	<b>XW2Z-100J-A14</b>
CJ1W open collector output type For CJ1W-NC213/NC413 (XW2B-40J6-2B)	for 2 axis	0.5 m	<b>XW2Z-050J-A15</b>
		1 m	<b>XW2Z-100J-A15</b>
CS1W/C200HW open collector output type For CS1W-NC113 For C200HW-NC113 (XW2B-20J6-1B)	for 1 axis	0.5 m	<b>XW2Z-050J-A6</b>
		1 m	<b>XW2Z-100J-A6</b>
CS1W/C200HW open collector output type For CS1W-NC213/NC413 For C200HW-NC213/NC413 (XW2B-40J6-2B)	for 2 axis	0.5 m	<b>XW2Z-050J-A7</b>
		1 m	<b>XW2Z-100J-A7</b>
CJ1M open collector output type For CJ1M-CPU21/CPU22/CPU23 (XW2B-20J6-8A, XW2B-40J6-9A)	for 1 axis	0.5 m	<b>XW2Z-050J-A33</b>
		1 m	<b>XW2Z-100J-A33</b>
For FQM1-MMA22 (Analog output) (XW2B-80J7-12A)	General-purpose I/O (26 pin)	0.5 m	<b>XW2Z-050J-A28</b>
		1 m	<b>XW2Z-100J-A28</b>
		2 m	<b>XW2Z-200J-A28</b>
	Special I/O (40 pin)	0.5 m	<b>XW2Z-050J-A31</b>
		1 m	<b>XW2Z-100J-A31</b>
		2 m	<b>XW2Z-200J-A31</b>
For FQM1-MMP22 (Pulse train output) (XW2B-80J7-12A)	General-purpose I/O (26 pin)	0.5 m	<b>XW2Z-050J-A28</b>
		1 m	<b>XW2Z-100J-A28</b>
		2 m	<b>XW2Z-200J-A28</b>
	Special I/O (40 pin)	0.5 m	<b>XW2Z-050J-A30</b>
		1 m	<b>XW2Z-100J-A30</b>
		2 m	<b>XW2Z-200J-A30</b>
For CQM1H-PLB21 (XW2B-20J6-3B)	General-purpose I/O (26 pin)	0.5 m	<b>XW2Z-050J-A3</b>
		1 m	<b>XW2Z-100J-A3</b>

# AC Servomotor/Drive OMNUC G5-series

## ● MECHATROLINK-II Communications

MECHATROLINK-related Devices and Cables (Manufactured by Yaskawa Corporation)

Name	Length	Model (OMRON model number)	Yaskawa model number
MECHATROLINK-II Cables (without ring core and USB connector on both ends) * Can be connected to R88D-GN and R88D-KN only.	0.5 m	FNY-W6002-A5	JEPMC-W6002-A5-E
	1.0 m	FNY-W6002-01	JEPMC-W6002-01-E
	3.0 m	FNY-W6002-03	JEPMC-W6002-03-E
	5.0 m	FNY-W6002-05	JEPMC-W6002-05-E
	0.5 m	FNY-W6003-A5	JEPMC-W6003-A5
MECHATROLINK-II Cables (with ring core and USB connector on both ends)	1.0 m	FNY-W6003-01	JEPMC-W6003-01
	3.0 m	FNY-W6003-03	JEPMC-W6003-03
	5.0 m	FNY-W6003-05	JEPMC-W6003-05
	10.0 m	FNY-W6003-10	JEPMC-W6003-10
	20.0 m	FNY-W6003-20	JEPMC-W6003-20
	30.0 m	FNY-W6003-30	JEPMC-W6003-30
MECHATROLINK-II Terminating Resistor	Terminating resistance	FNY-W6022	JEPMC-W6022
MECHATROLINK-II Repeater	Communications Repeater	FNY-REP2000	JEPMC-REP2000

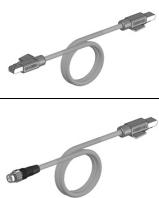
• MECHATROLINK-related Devices and Cables are manufactured by Yaskawa Corporation, but they can be ordered directly from OMRON using the OMRON model numbers. (Yaskawa-brand products will be delivered even when they are ordered from OMRON.)

## ● Recommended EtherCAT Communications Cables

Category 5 or higher (100BASE-TX) straight cable with double shielding (aluminum tape and braided shielding) is recommended.

### Cable with Connectors

Wire Gauge and Number of Pairs: AWG22, 2-pair Cable

Item	Appearance	Recommended manufacturer	Cable length(m)	Model
Cable with Connectors on Both Ends (RJ45/RJ45)		OMRON	0.3	XS5W-T421-AMD-K
			0.5	XS5W-T421-BMD-K
			1	XS5W-T421-CMD-K
			2	XS5W-T421-DMC-K
			5	XS5W-T421-GMC-K
			10	XS5W-T421-JMC-K

Note: The cable length 0.3, 0.5, 1, 2, 3, 5, 10 and 15m are available. For details, refer to Cat.No.G019.

### Cables / Connectors

Wire Gauge and Number of Pairs: AWG24, 4-pair Cable

Item	Appearance	Recommended manufacturer	Model
Cables	—	Tonichi Kyosan Cable, Ltd.	NETSTAR-C5E SAB 0.5 x 4P
	—	Kuramo Electric Co.	KETH-SB
	—	SWCC Showa Cable Systems Co.	FAE-5004
RJ45 Connectors	—	Panduit Corporation	MPS588

Wire Gauge and Number of Pairs: AWG22, 2-pair Cable

Item	Appearance	Recommended manufacturer	Model
Cables	—	Kuramo Electric Co.	KETH-PSB-OMR *
RJ45 Assembly Connector		OMRON	XS6G-T421-1 *

\* We recommend you to use above cable and connector together.

## ■ Peripheral Devices (External Regeneration Resistors, Reactors, Mounting Brackets)

## External Regeneration Resistors

Specifications	Model
80 W 50 Ω	R88A-RR08050S
80 W 100 Ω	R88A-RR080100S
220 W 47 Ω	R88A-RR22047S1
500 W 20 Ω	R88A-RR50020S

## Reactors

Specifications			Model
General-purpose Inputs	MECHATROLINK-II Communications	EtherCAT Communications	
R88D-KTA5L/-KT01H (Single-phase)	R88D-KNA5L-ML2/-KN01H-ML2 (Single-phase)	R88D-KNA5L-ECT/-KN01H-ECT (Single-phase)	3G3AX-DL2002
R88D-KT01L/-KT02H (Single-phase)	R88D-KN01L-ML2/-KN02H-ML2 (Single-phase)	R88D-KN01L-ECT/-KN02H-ECT (Single-phase)	3G3AX-DL2004
R88D-KT02L/-KT04H (Single-phase)	R88D-KN02L-ML2/-KN04H-ML2 (Single-phase)	R88D-KN02L-ECT/-KN04H-ECT (Single-phase)	3G3AX-DL2007
R88D-KT04L/-KT08H/-KT10H (Single-phase)	R88D-KN04L-ML2/-KN08H-ML2/ -KN10H-ML2 (Single-phase)	R88D-KN04L-ECT/-KN08H-ECT/ -KN10H-ECT (Single-phase)	3G3AX-DL2015
R88D-KT15H (Single-phase)	R88D-KN15H-ML2 (Single-phase)	R88D-KN15H-ECT (Single-phase)	3G3AX-DL2022
R88D-KT01H/-KT02H/-KT04H/-KT08H/ -KT10H/-KT15H (Three-phase)	R88D-KN01H-ML2/-KN02H-ML2/ -KN04H-ML2/-KN08H-ML2/ -KN10H-ML2/-KN15H-ML2 (Three-phase)	R88D-KN01H-ECT/-KN02H-ECT/ -KN04H-ECT/-KN08H-ECT/ -KN10H-ECT/-KN15H-ECT (Three-phase)	3G3AX-AL2025
R88D-KT20H/-KT30H	R88D-KN20H-ML2/-KN30H-ML2	R88D-KN20H-ECT/-KN30H-ECT	3G3AX-AL2055
R88D-KT50H	R88D-KN50H-ML2	R88D-KN50H-ECT	3G3AX-AL2110
R88D-KT06F/-KT10F/-KT15F	R88D-KN06F-ML2/-KN10F-ML2/ -KN15F-ML2	R88D-KN06F-ECT/-KN10F-ECT/ -KN15F-ECT	3G3AX-AL4025
R88D-KT20F/-KT30F	R88D-KN20F-ML2/-KN30F-ML2	R88D-KN20F-ECT/-KN30F-ECT	3G3AX-AL4055
R88D-KT50F	R88D-KN50F-ML2	R88D-KN50F-ECT	3G3AX-AL4110
R88D-KT75H/-KT150F	—	R88D-KT75H-ECT/-KT150F-ECT	3G3AX-AL4220

## Mounting Brackets (L Brackets for Rack Mounting)

Specifications			Model
General-purpose Inputs	MECHATROLINK-II Communications	EtherCAT Communications	
R88D-KTA5L/-KT01L/-KT01H/-KT02H	R88D-KNA5L-ML2/-KN01L-ML2/-KN01H- ML2/-KN02H-ML2	R88D-KNA5L-ECT/-KN01L-ECT/ -KN01H-ECT/-KN02H-ECT	R88A-TK01K
R88D-KT02L/-KT04H	R88D-KN02L-ML2/-KN04H-ML2	R88D-KN02L-ECT/-KN04H-ECT	R88A-TK02K
R88D-KT04L/-KT08H	R88D-KN04L-ML2/-KN08H-ML2	R88D-KN04L-ECT/-KN08H-ECT	R88A-TK03K
R88D-KT10H/KT15H/-KT06F/-KT10F/- KT15F	R88D-KN10H-ML2/-KN15H-ML2/-KN06F- ML2/-KN10F-ML2/ -KN15F-ML2	R88D-KN10H-ECT/-KN15H-ECT/ -KN06F-ECT/-KN10F-ECT/ -KN15F-ECT	R88A-TK04K

## ■ Support Software (CX-One/CX-Drive)

Product name	Specifications	Number of licenses	Media	Model
FA Integrated Tool Package CX-One Ver. 4.□	The CX-One is a comprehensive software package that integrates Support Software for OMRON PLCs and components. CX-One runs on following OS. OS: Windows XP (Service Pack 3 or higher), Vista or 7 <b>Note:</b> Except for Windows XP 64-bit version. CX-One Version.4.□ includes CX-Drive Ver.2.□. For details, refer to the CX-One catalog (Cat. No. R134).  CX-Drive can still be ordered individually in the following model numbers.	1 license *1	DVD *2	CXONE-AL01D-V4
CX-Drive Ver.2.□	Application software to set and control data for Inverters and Servos. OS: Windows 2000 (Service Pack 3 or higher), XP, or Vista <b>Note:</b> Except for 64-bit version.	1 license	CD	WS02-DRVC1

\*1. Multi licenses are available for the CX-One (3, 10, 30, or 50 licenses).

\*2. The CX-One is also available on CD (CXONE-AL□□C-V4).

## Combination table

### Servo Drive and Servomotor Combinations (3,000 r/min, 2,000 r/min, 1,000 r/min)

#### <Cylinder Type>

##### ● 3,000-r/min servomotors

Power Supply Voltage	Servo Drive Model Numbers			Servomotor Model Numbers	
	General-purpose Inputs	MECHATROLINK-II	EtherCAT	Output	With incremental encoder
Single-phase 100 to 115 VAC	R88D-KTA5L	R88D-KNA5L-ML2	R88D-KNA5L-ECT	50 W	R88M-K05030H-□
	R88D-KT01L	R88D-KN01L-ML2	R88D-KN01L-ECT	100 W	R88M-K10030L-□
	R88D-KT02L	R88D-KN02L-ML2	R88D-KN02L-ECT	200 W	R88M-K20030L-□
	R88D-KT04L	R88D-KN04L-ML2	R88D-KN04L-ECT	400 W	R88M-K40030L-□
Single-phase/ three-phase 200 to 240 VAC	R88D-KT01H *	R88D-KN01H-ML2 *	R88D-KN01H-ECT *	50 W	R88M-K05030H-□ *
	R88D-KT01H	R88D-KN01H-ML2	R88D-KN01H-ECT	100 W	R88M-K10030H-□
	R88D-KT02H	R88D-KN02H-ML2	R88D-KN02H-ECT	200 W	R88M-K20030H-□
	R88D-KT04H	R88D-KN04H-ML2	R88D-KN04H-ECT	400 W	R88M-K40030H-□
	R88D-KT08H	R88D-KN08H-ML2	R88D-KN08H-ECT	750 W	R88M-K75030H-□
	R88D-KT15H *	R88D-KN15H-ML2 *	R88D-KN15H-ECT *	1 kW	R88M-K1K030H-□ *
	R88D-KT15H	R88D-KN15H-ML2	R88D-KN15H-ECT	1.5 kW	R88M-K1K530H-□
Three-phase 200 to 240 VAC	R88D-KT20H	R88D-KN20H-ML2	R88D-KN20H-ECT	2 kW	R88M-K2K030H-□
	R88D-KT30H	R88D-KN30H-ML2	R88D-KN30H-ECT	3 kW	R88M-K3K030H-□
	R88D-KT50H	R88D-KN50H-ML2	R88D-KN50H-ECT *	4 kW	R88M-K4K030H-□
	R88D-KT50H	R88D-KN50H-ML2	R88D-KN50H-ECT	5 kW	R88M-K5K030H-□
Three-phase 400 to 480 VAC	R88D-KT10F	R88D-KN10F-ML2	R88D-KN10F-ECT *	750 W	R88M-K75030F-□
	R88D-KT15F *	R88D-KN15F-ML2 *	R88D-KN15F-ECT *	1 kW	R88M-K1K030F-□ *
	R88D-KT15F	R88D-KN15F-ML2	R88D-KN15F-ECT	1.5 kW	R88M-K1K530F-□
	R88D-KT20F	R88D-KN20F-ML2	R88D-KN20F-ECT	2 kW	R88M-K2K030F-□
	R88D-KT30F	R88D-KN30F-ML2	R88D-KN30F-ECT	3 kW	R88M-K3K030F-□
	R88D-KT50F	R88D-KN50F-ML2	R88D-KN50F-ECT *	4 kW	R88M-K4K030F-□
	R88D-KT50F	R88D-KN50F-ML2	R88D-KN50F-ECT	5 kW	R88M-K5K030F-□

##### ● 2,000-r/min servomotors

Power Supply Voltage	Servo Drive Model Numbers			Servomotor Model Numbers	
	General-purpose Inputs	MECHATROLINK-II	EtherCAT	Output	With incremental encoder
Single-phase/ three-phase 200 to 240 VAC	R88D-KT10H	R88D-KN10H-ML2	R88D-KN10H-ECT	1 kW	R88M-K1K020H-□
	R88D-KT15H	R88D-KN15H-ML2	R88D-KN15H-ECT	1.5 kW	R88M-K1K520H-□
Three-phase 200 to 240 VAC	R88D-KT20H	R88D-KN20H-ML2	R88D-KN20H-ECT	2 kW	R88M-K2K020H-□
	R88D-KT30H	R88D-KN30H-ML2	R88D-KN30H-ECT	3 kW	R88M-K3K020H-□
	R88D-KT50H *	R88D-KN50H-ML2 *	R88D-KN50H-ECT *	4 kW	R88M-K4K020H-□ *
	R88D-KT50H	R88D-KN50H-ML2	R88D-KN50H-ECT	5 kW	R88M-K5K020H-□
	R88D-KT75H	—	R88D-KN75H-ECT	7.5 kW	—
	R88D-KT150H *	—	R88D-KN150H-ECT *	11 kW	—
	R88D-KT150H	—	R88D-KN150H-ECT	15 kW	—
Three-phase 400 to 480 VAC	R88D-KT06F	R88D-KN06F-ML2	R88D-KN06F-ECT *	400 W	R88M-K40020F-□
	R88D-KT06F	R88D-KN06F-ML2	R88D-KN06F-ECT	600 W	R88M-K60020F-□
	R88D-KT10F	R88D-KN10F-ML2	R88D-KN10F-ECT	1 kW	R88M-K1K020F-□
	R88D-KT15F	R88D-KN15F-ML2	R88D-KN15F-ECT	1.5 kW	R88M-K1K520F-□
	R88D-KT20F	R88D-KN20F-ML2	R88D-KN20F-ECT	2 kW	R88M-K2K020F-□
	R88D-KT30F	R88D-KN30F-ML2	R88D-KN30F-ECT	3 kW	R88M-K3K020F-□
	R88D-KT50F *	R88D-KN50F-ML2 *	R88D-KN50F-ECT *	4 kW	R88M-K4K020F-□ *
	R88D-KT50F	R88D-KN50F-ML2	R88D-KN50F-ECT	5 kW	R88M-K5K020F-□
	R88D-KT75F	—	R88D-KN75F-ECT	7.5 kW	—
	R88D-KT150F *	—	R88D-KN150F-ECT *	11 kW	—
	R88D-KT150F	—	R88D-KN150F-ECT	15 kW	—

## ● 1,000-r/min servomotors

Power Supply Voltage	Servo Drive Model Numbers			Servomotor Model Numbers		
	General-purpose Inputs	MECHATROLINK-II	EtherCAT	Output	With incremental encoder	With absolute encoder
Single-phase/	R88D-KT15H *	R88D-KN15H-ML2 *	R88D-KN15H-ECT *	900 W	R88M-K90010H-□ *	R88M-K90010T-□ *
Three-phase 200 to 240 VAC	R88D-KT30H *	R88D-KN30H-ML2 *	R88D-KN30H-ECT *	2 kW	R88M-K2K010H-□ *	R88M-K2K010T-□ *
	R88D-KT50H *	R88D-KN50H-ML2 *	R88D-KN50H-ECT *	3 kW	R88M-K3K010H-□ *	R88M-K3K010T-□ *
	R88D-KT50H *	—	R88D-KN50H-ECT *	4.5 kW	—	R88M-K4K510T-□ *
	R88D-KT75H *	—	R88D-KN75H-ECT *	6 kW	—	R88M-K6K010T-□ *
Three-phase 400 to 480 VAC	R88D-KT15F *	R88D-KN15F-ML2 *	R88D-KN15F-ECT *	900 W	R88M-K90010F-□ *	R88M-K90010C-□ *
	R88D-KT30F *	R88D-KN30F-ML2 *	R88D-KN30F-ECT *	2 kW	R88M-K2K010F-□ *	R88M-K2K010C-□ *
	R88D-KT50F *	R88D-KN50F-ML2 *	R88D-KN50F-ECT *	3 kW	R88M-K3K010F-□ *	R88M-K3K010C-□ *
	R88D-KT50F *	—	R88D-KN50F-ECT *	4.5 kW	—	R88M-K4K510C-□ *
	R88D-KT75F *	—	R88D-KN75F-ECT *	6 kW	—	R88M-K6K010C-□ *

\* Please note the capacity of Servo Drive and Servomotor are not same in this combination.

**Servomotor and Decelerator Combinations (3,000 r/min, 2,000 r/min, 1,000 r/min)**

**<Cylinder Type>**

**● 3,000-r/min servomotors**

Motor model	1/5	1/11 (1/9 for flange size No.11)	1/21	1/33	1/45
R88M-K05030□	R88G-HPG11B05100B□ (Also used with R88M-K10030□)	R88G-HPG11B09050B□ (Gear ratio 1/9)	R88G-HPG14A21100B□ (Also used with R88M-K10030□)	R88G-HPG14A33050B□	R88G-HPG14A45050B□
R88M-K10030□	R88G-HPG11B05100B□	R88G-HPG14A11100B□	R88G-HPG14A21100B□	R88G-HPG20A33100B□	R88G-HPG20A45100B□
R88M-K20030□	R88G-HPG14A05200B□	R88G-HPG14A11200B□	R88G-HPG20A21200B□	R88G-HPG20A33200B□	R88G-HPG20A45200B□
R88M-K40030□	R88G-HPG14A05400B□	R88G-HPG20A11400B□	R88G-HPG20A21400B□	R88G-HPG32A33400B□	R88G-HPG32A45400B□
R88M-K75030H/T (200 V)	R88G-HPG20A05750B□	R88G-HPG20A11750B□	R88G-HPG32A21750B□	R88G-HPG32A33750B□	R88G-HPG32A45750B□
R88M-K75030F/C (400 V)	R88G-HPG32A052K0B□ (Also used with R88M-K2K030□)	R88G-HPG32A112K0B□ (Also used with R88M-K2K030□)	R88G-HPG32A211K5B□ (Also used with R88M-K1K5030□)	R88G-HPG32A33600SB□ (Also used with R88M-K60020□)	R88G-HPG50A451K5B□ (Also used with R88M-K1K530□)
R88M-K1K030□	R88G-HPG32A052K0B□ (Also used with R88M-K2K030□)	R88G-HPG32A112K0B□ (Also used with R88M-K2K030□)	R88G-HPG32A211K5B□ (Also used with R88M-K1K5030□)	R88G-HPG50A332K0B□ (Also used with R88M-K2K030□)	R88G-HPG50A451K5B□ (Also used with R88M-K1K530□)
R88M-K1K530□	R88G-HPG32A052K0B□ (Also used with R88M-K2K030□)	R88G-HPG32A112K0B□ (Also used with R88M-K2K030□)	R88G-HPG32A211K5B□ (Also used with R88M-K1K5030□)	R88G-HPG50A332K0B□ (Also used with R88M-K2K030□)	R88G-HPG50A451K5B□
R88M-K2K030□	R88G-HPG32A052K0B□	R88G-HPG32A112K0B□	R88G-HPG50A212K0B□	R88G-HPG50A332K0B□	—
R88M-K3K030□	R88G-HPG32A053K0B□	R88G-HPG50A113K0B□	R88G-HPG50A213K0B□	—	—
R88M-K4K030□	R88G-HPG32A054K0B□	R88G-HPG50A115K0B□ (Also used with R88M-K5K030□)	—	—	—
R88M-K5K030□	R88G-HPG50A055K0B□	R88G-HPG50A115K0B□	—	—	—

**● 2,000-r/min servomotors**

Motor model	1/5	1/11	1/21 (1/20 for flange size No.65)	1/33 (1/25 for flange size No.65)	1/45
R88M-K40020□ (Only 400 V)	R88G-HPG32A052K0B□ (Also used with R88M-K2K030□)	R88G-HPG32A112K0B□ (Also used with R88M-K2K030□)	R88G-HPG32A211K5B□ (Also used with R88M-K1K5030□)	R88G-HPG32A33600SB□ (Also used with R88M-K60020□)	R88G-HPG32A45400SB□
R88M-K60020□ (Only 400 V)	R88G-HPG32A052K0B□ (Also used with R88M-K2K030□)	R88G-HPG32A112K0B□ (Also used with R88M-K2K030□)	R88G-HPG32A211K5B□ (Also used with R88M-K1K5030□)	R88G-HPG32A33600SB□	R88G-HPG50A451K5B□ (R88M-K1K530□)
R88M-K1K020□	R88G-HPG32A053K0B□ (Also used with R88M-K3K030□)	R88G-HPG32A112K0SB□ (Also used with R88M-K2K020□)	R88G-HPG32A211K0SB□	R88G-HPG50A332K0SB□ (Also used with R88M-K2K020□)	R88G-HPG50A451K0SB□
R88M-K1K520□	R88G-HPG32A053K0B□ (Also used with R88M-K3K030□)	R88G-HPG32A112K0SB□ (Also used with R88M-K2K020□)	R88G-HPG50A213K0B□ (Also used with R88M-K3K030□)	R88G-HPG50A332K0SB□ (Also used with R88M-K2K020□)	—
R88M-K2K020□	R88G-HPG32A053K0B□ (Also used with R88M-K3K030□)	R88G-HPG32A112K0SB□	R88G-HPG50A213K0B□ (Also used with R88M-K3K030□)	R88G-HPG50A332K0SB□	—
R88M-K3K020□	R88G-HPG32A054K0B□ (Also used with R88M-K4K030□)	R88G-HPG50A115K0B□ (Also used with R88M-K5K030□)	R88G-HPG50A213K0SB□	R88G-HPG65A253K0SB□	—
R88M-K4K020□	R88G-HPG50A055K0SB□ (Also used with R88M-K5K020□)	R88G-HPG50A115K0SB□ (Also used with R88M-K3K030□)	R88G-HPG65A205K0SB□ (Also used with R88M-K3K030□)	R88G-HPG65A255K0SB□ (Also used with R88M-K5K020□)	—
R88M-K5K020□	R88G-HPG50A055K0SB□	R88G-HPG50A115K0SB□	R88G-HPG65A205K0SB□	R88G-HPG65A255K0SB□	—

**● 1,000-r/min servomotors**

Motor model	1/5	1/11	1/21 (1/20 for flange size No.65)	1/33 (1/25 for flange size No.65)
R88M-K90010□	R88G-HPG32A053K0B□ (Also used with R88M-K5K020□)	R88G-HPG32A112K0SB□ (Also used with R88M-K2K020□)	R88G-HPG50A213K0B□ (Also used with R88M-K3K030□)	R88G-HPG50A332K0SB□ (Also used with R88M-K2K020□)
R88M-K2K010□	R88G-HPG32A052K0TB□	R88G-HPG50A112K0TB□	R88G-HPG50A212K0TB□ (Also used with R88M-K5K020□)	R88G-HPG65A255K0SB□ (Also used with R88M-K5K020□)
R88M-K3K010□	R88G-HPG50A055K0SB□ (Also used with R88M-K5K020□)	R88G-HPG50A115K0SB□ (Also used with R88M-K5K020□)	R88G-HPG65A205K0SB□ (Also used with R88M-K5K020□)	R88G-HPG65A255K0SB□ (Also used with R88M-K5K020□)

## Controller Combinations

### ● Servo Relay Units and Cables

Select the Servo Relay Unit and Cable according to the model number of the Position Control Unit being used.

Position Control Unit	Position Control Unit Cable	Servo Relay Unit	Servo Drive Cable	
CQM1H-PLB21	XW2Z-□□□J-A3	XW2B-20J6-3B		
CS1W-NC113	XW2Z-□□□J-A6	XW2B-20J6-1B		
C200HW-NC113				
CS1W-NC213				
CS1W-NC413	XW2Z-□□□J-A7	XW2B-40J6-2B		
C200HW-NC213				
C200HW-NC413				
CS1W-NC133	XW2Z-□□□J-A10	XW2B-20J6-1B		
CS1W-NC233	XW2Z-□□□J-A11	XW2B-40J6-2B	XW2Z-□□□J-B25	
CS1W-NC433				
CJ1W-NC113	XW2Z-□□□J-A14	XW2B-20J6-1B		
CJ1W-NC213	XW2Z-□□□J-A15	XW2B-40J6-2B		
CJ1W-NC413				
CJ1W-NC133	XW2Z-□□□J-A18	XW2B-20J6-1B		
CJ1W-NC233	XW2Z-□□□J-A19	XW2B-40J6-2B		
CJ1W-NC433				
CJ1M-CPU21		For 1 axis	XW2B-20J6-8A	
CJ1M-CPU22	XW2Z-□□□J-A33	For 2 axis	XW2B-40J6-9A	XW2Z-□□□J-B31
CJ1M-CPU23				
FQM1-MMP22	General-purpose I/O	XW2Z-□□□J-A28		XW2Z-□□□J-B26
	Special I/O	XW2Z-□□□J-A30		
FQM1-MMA22	General-purpose I/O	XW2Z-□□□J-A28	XW2B-80J7-12A	XW2Z-□□□J-B27
	Special I/O	XW2Z-□□□J-A31		

**Note:**

1. Insert the cable length into the boxes in the model number (□□□). Position Control Unit cables come in two lengths: 0.5 m and 1 m (some are also available in lengths of 2 m). Servo Driver Cables also come in two lengths: 1 m and 2 m.
2. Two Servo Driver Cables are required if 2-axis control is performed using one Position Control Unit.
3. Direct cable is available for CJ1W-NC□□4 Position Control Unit (High-Speed type).

Specifications	The number of axes	Model
For CJ1W-NC214/-NC414 (open collector output type)	1 axis	XW2Z-□□□J-G13
For CJ1W-NC214/-NC414 (open collector output type)	2 axis	XW2Z-□□□J-G5
For CJ1W-NC234/-NC434 (line-driver output type)	1 axis	XW2Z-□□□J-G9
For CJ1W-NC234/-NC434 (line-driver output type)	2 axis	XW2Z-□□□J-G1

### ● Motion Control Unit Cables

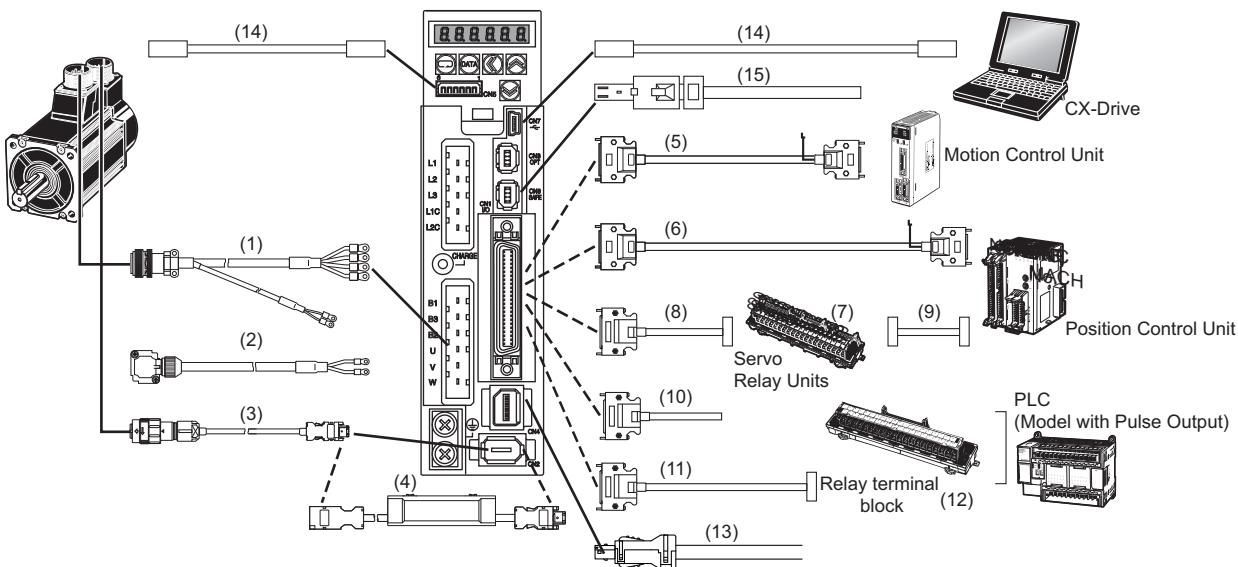
There are special cables for 1-axis and 2-axis Motion Control Unit operation. Select the appropriate cable for the number of axes to be connected.

Motion Control Unit	Cable		Remarks
CS1W-MC221-V1	For 1 axis	R88A-CPG□□□M1	The □□□ digits in the model number indicate the cable length. Motion Control Unit Cables come in four lengths: 1 m, 2 m, 3 m, and 5 m. Example model number for 2-m 1-axis cable: R88A-CPG002M1
CS1W-MC421-V1	For 2 axis	R88A-CPG□□□M2	

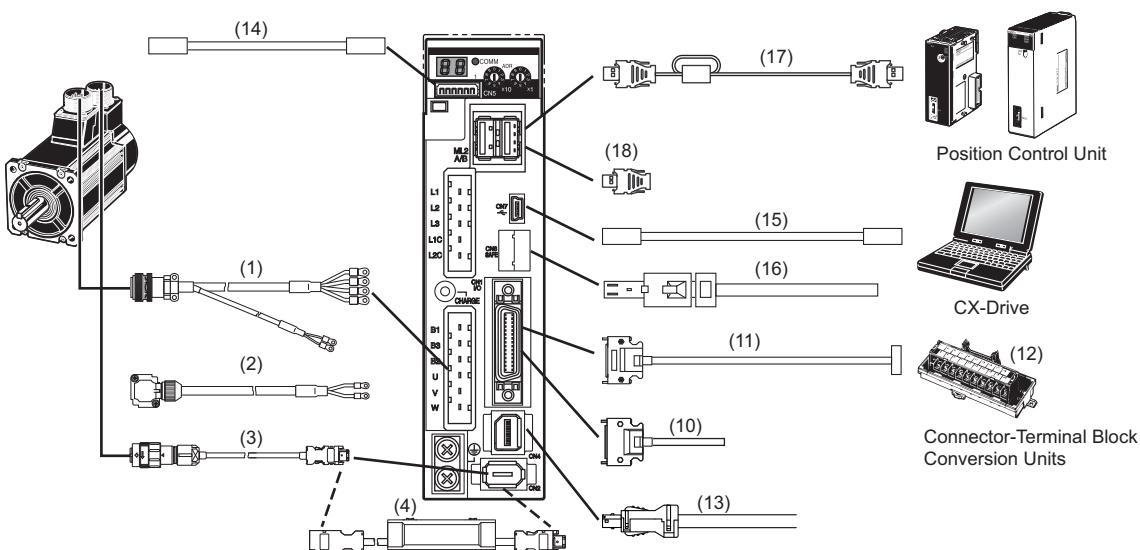
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## Cable Combinations

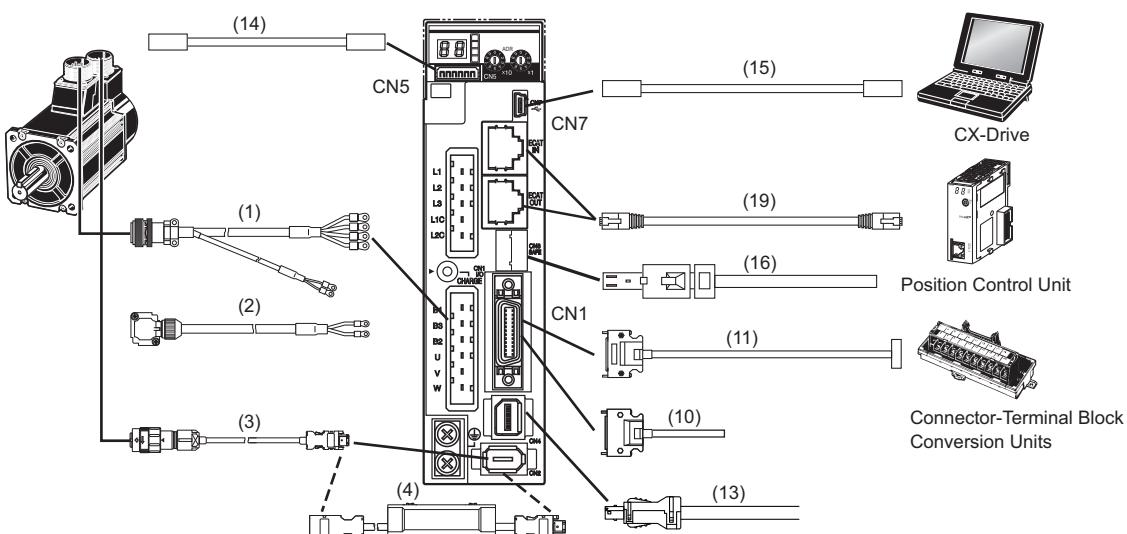
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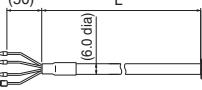
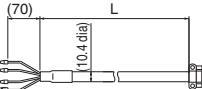
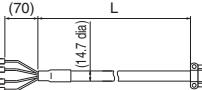
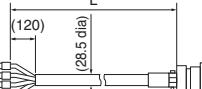
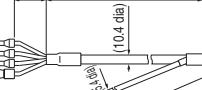
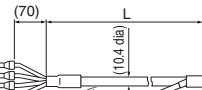
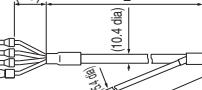
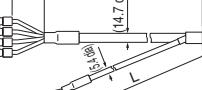


- EtherCAT Communications



# AC Servomotor/Drive OMNUC G5-series

## Servomotor Power Cables (For CNB)

Symbol		Name	Connected to	Model	Description
(1)	Without Brakes	Standard Servomotor Power Cables for Servomotors without Brakes	[100 V] [200 V] Cylindrical Servomotors, 3,000 r/min, 50 to 750 W	R88A-CAKA□□□S The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	 <p>[Servomotor Connector] Angle plug: JN8FT04SJ1 (Japan Aviation Electronics Industry, Ltd.) Contact pins: ST-TMH-S-C1B-3500-A534G (Japan Aviation Electronics Industry, Ltd.)</p>
			[200 V] Cylindrical Servomotors, 3,000 r/min, 1 to 2 kW Cylindrical Servomotors, 2,000 r/min, 1 to 2 kW Cylindrical Servomotors, 1,000 r/min, 900 W	R88A-CAGB□□□S The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	 <p>[Servomotor Connector] Straight plug: N/MS3106B20-4S (Japan Aviation Electronics Industry, Ltd.) Cable clamp: N/MS3057-12A (Japan Aviation Electronics Industry, Ltd.)</p>
			[400 V] Cylindrical Servomotors, 3,000 r/min, 750 W to 2 kW Cylindrical Servomotors, 2,000 r/min, 400 W to 2 kW Cylindrical Servomotors, 1,000 r/min, 900 W	R88A-CAGD□□□S The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	 <p>[Servomotor Connector] Straight plug: N/MS3106B22-22S (Japan Aviation Electronics Industry, Ltd.) Cable clamp: N/MS3057-12A (Japan Aviation Electronics Industry, Ltd.)</p>
			[200 V] [400 V] Cylindrical Servomotors, 3,000 r/min, 3 to 5 kW Cylindrical Servomotors, 2,000 r/min, 3 to 5 kW Cylindrical Servomotors, 1,000 r/min, 2 to 4.5 kW	R88A-CAGE□□□S The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	 <p>[Servomotor Connector] Straight plug: N/MS3106B32-17S (Japan Aviation Electronics Industry, Ltd.) Cable clamp: N/MS3057-20A (Japan Aviation Electronics Industry, Ltd.)</p>
			[200 V] [400 V] Cylindrical Servomotors, 1,500 r/min, 7.5 kW Cylindrical Servomotors, 1,000 r/min, 6 kW	R88A-CAK□□□S The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	 <p>[Servomotor Connector] Straight plug: N/MS3106B32-18S (Japan Aviation Electronics Industry, Ltd.) Cable clamp: N/MS3057-12A (Japan Aviation Electronics Industry, Ltd.)</p>
	Standard Cables	<p><b>Note:</b> Different connectors are used for the motor power and the brake on 100-V and 200-V, 3,000-r/min Servomotors of 50 to 750 W and Servomotors of 6 to 15 kW. When using a Servomotor with a brake, two cables are required: a Power Cable without Brake and a Brake Cable.</p>			
		Standard Servomotor Power Cables for Servomotors with Brakes	[200 V] Cylindrical Servomotors, 3,000 r/min, 1 to 2 kW Cylindrical Servomotors, 2,000 r/min, 1 to 2 kW Cylindrical Servomotors, 1,000 r/min, 900 W	R88A-CAGB□□□B The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	 <p>[Servomotor Connector] Straight plug: N/MS3106B20-18S (Japan Aviation Electronics Industry, Ltd.) Cable clamp: N/MS3057-12A (Japan Aviation Electronics Industry, Ltd.)</p>
			[400 V] Cylindrical Servomotors, 3,000 r/min, 1 to 2 kW Cylindrical Servomotors, 2,000 r/min, 400 W to 2 kW Cylindrical Servomotors, 1,000 r/min, 900 W	R88A-CAKF□□□B The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	 <p>[Servomotor Connector] Straight plug: N/MS3106B24-11S (Japan Aviation Electronics Industry, Ltd.) Cable clamp: N/MS3057-16A (Japan Aviation Electronics Industry, Ltd.)</p>
			[200 V] [400 V] Cylindrical Servomotors, 3,000 r/min, 3 to 5 kW Cylindrical Servomotors, 2,000 r/min, 3 to 5 kW Cylindrical Servomotors, 1,000 r/min, 2 to 3 kW	R88A-CAGD□□□B The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	 <p>[Servomotor Connector] Straight plug: N/MS3106B24-11S (Japan Aviation Electronics Industry, Ltd.) Cable clamp: N/MS3057-16A (Japan Aviation Electronics Industry, Ltd.)</p>

**Note:** Insert the cable length into the boxes in the model number of cables. (3 m: 003, 5 m: 005, 10 m: 010)

Symbol		Name	Connected to	Model	Description
(1)	Without Brakes	Robot Servomotor Power Cables for Servomotors without Brakes	[100 V] [200 V] Cylindrical Servomotors, 3,000 r/min, 50 to 750 W	R88A-CAKA□□□SR(-E) The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	
			[200 V] Cylindrical Servomotors, 3,000 r/min, 1 to 2 kW Cylindrical Servomotors, 2,000 r/min, 1 to 2 kW Cylindrical Servomotors, 1,000 r/min, 900 W	R88A-CAGB□□□SR(-E) The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	
			[400 V] Cylindrical Servomotors, 3,000 r/min, 750 W to 2 kW Cylindrical Servomotors, 2,000 r/min, 400 W to 2 kW Cylindrical Servomotors, 1,000 r/min, 900 W	R88A-CAGD□□□SR(-E) The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	
			[200 V] [400 V] Cylindrical Servomotors, 1,000 r/min, 3 to 5 kW Cylindrical Servomotors, 2,000 r/min, 3 to 5 kW Cylindrical Servomotors, 1,000 r/min, 900 W	R88A-CAGD□□□SR(-E) The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	
			[200 V] [400 V] Cylindrical Servomotors, 1,000 r/min, 3 to 5 kW Cylindrical Servomotors, 2,000 r/min, 3 to 5 kW Cylindrical Servomotors, 1,000 r/min, 900 W	R88A-CAKF□□□BR(-E) The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	
	With Brakes	Robot Servomotor Power Cables for Servomotors with Brakes	[400 V] Cylindrical Servomotors, 3,000 r/min, 1 to 2 kW Cylindrical Servomotors, 2,000 r/min, 1 to 2 kW Cylindrical Servomotors, 1,000 r/min, 900 W	R88A-CAKF□□□BR(-E) The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	
			[200 V] [400 V] Cylindrical Servomotors, 1,000 r/min, 3 to 5 kW Cylindrical Servomotors, 2,000 r/min, 3 to 5 kW Cylindrical Servomotors, 1,000 r/min, 900 W	R88A-CAGD□□□BR The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	
			[200 V] [400 V] Cylindrical Servomotors, 1,000 r/min, 3 to 5 kW Cylindrical Servomotors, 2,000 r/min, 3 to 5 kW Cylindrical Servomotors, 1,000 r/min, 900 W	R88A-CAKA□□□BR The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	

**Note:** Insert the cable length into the boxes in the model number of cables. (3 m: 003, 5 m: 005, 10 m: 010)

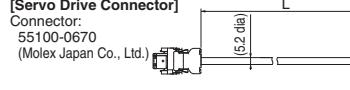
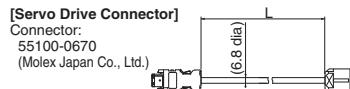
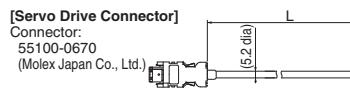
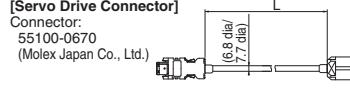
### Brake Cables

Symbol		Name	Connected to	Model	Description
(2)	Standard Cables	Brake Cables (Standard Cables)	[100 V] [200 V] Cylindrical Servomotors, 3,000 r/min, 50 to 750 W	R88A-CAKA□□□B The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long. (3 to 20 m: 4.4 dia 30 to 50 m: 5.4 dia)	
			[200 V] [400 V] Cylindrical Servomotors, 1,500 r/min, 7.5 to 15 kW 1,000 r/min, 6 kW	R88A-CAGE□□□B The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long. (5.4 dia)	
	Robot Cables	Brake Cables (Robot Cables)	[100 V] [200 V] Cylindrical Servomotors, 3,000 r/min, 50 to 750 W	R88A-CAKA□□□BR The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long. (3 to 20 m: 4.4 dia 30 to 50 m: 6.1 dia)	

**Note:** Insert the cable length into the boxes in the model number of cables. (3 m: 003, 5 m: 005, 10 m: 010)

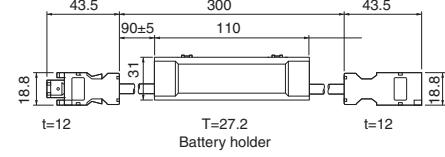
# AC Servomotor/Drive OMNUC G5-series

## Encoder Cables (for CN2)

Symbol	Name	Connected to	Model	Description
(3)	Standard Cables Standard Encoder Cables with Connectors	Cylindrical Servomotors, 3,000 r/min, 50 to 750 W (Absolute encoder/ Incremental encoder)	R88A-CRKA□□□C The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long. (3 to 20 m: 5.2 dia 30 to 50 m: 6.8 dia)	[Servo Drive Connector] Connector: 55100-0670 (Molex Japan Co., Ltd.)  [Servomotor Connector] Angle clamp: JN6FR07SM1 (Japan Aviation Electronics Industry, Ltd.) Connector pins: LY10-C1-A1-10000 (Japan Aviation Electronics Industry, Ltd.)
		Cylindrical Servomotors, 3,000 r/min, For 1 kW (200 V) For 750 W (400 V) Cylindrical Servomotors, 2,000 r/min, Cylindrical Servomotors, 1,000 r/min, (Absolute encoder/ Incremental encoder)	R88A-CRKC□□□N The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	[Servo Drive Connector] Connector: 55100-0670 (Molex Japan Co., Ltd.)  [Servomotor Connector] Straight plug: JN2DS10SL2-R (Japan Aviation Electronics Industry, Ltd.) Contact: JN1-22-20S-10000 (Japan Aviation Electronics Industry, Ltd.)
	Robot Cables Robot Encoder Cables with Connectors	Cylindrical Servomotors, 3,000 r/min, 50 to 750 W (Absolute encoder/ Incremental encoder)	R88A-CRKA□□□CR The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long. (3 to 20 m: 5.2 dia 30 to 50 m: 6.8 dia)	[Servo Drive Connector] Connector: 55100-0670 (Molex Japan Co., Ltd.)  [Servomotor Connector] Angle clamp: JN6FR07SM1 (Japan Aviation Electronics Industry, Ltd.) Connector pins: LY10-C1-A1-10000 (Japan Aviation Electronics Industry, Ltd.)
		Cylindrical Servomotors, 3,000 r/min, For 1 kW (200 V) For 750 W (400 V) Cylindrical Servomotors, 2,000 r/min, Cylindrical Servomotors, 1,000 r/min, (Absolute encoder/ Incremental encoder)	R88A-CRKC□□□NR The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long. (3 to 20 m: 6.8 dia 30 to 50 m: 7.7 dia)	[Servo Drive Connector] Connector: 55100-0670 (Molex Japan Co., Ltd.)  [Servomotor Connector] Straight plug: JN2DS10SL2-R (Japan Aviation Electronics Industry, Ltd.) Cable clamp: JN1-22-22S-10000 (Japan Aviation Electronics Industry, Ltd.)

**Note:** Insert the cable length into the boxes in the model number of cables. (3 m: 003, 5 m: 005, 10 m: 010)

## Absolute Encoder Backup Battery and Absolute Encoder Battery Cable

Symbol	Name	Specifications	Model	Description
(4)	Absolute Encoder Battery Cable	Battery not included	0.3 m R88A-CRGD0R3C	
		One R88A-BAT01G Battery included.	0.3 m R88A-CRGD0R3C-BS	
	Absolute Encoder Backup Battery	—	R88A-BAT01G	—

## Control Cables (for CN1)

Symbol	Name	Connected to	Model
(5)	Control Cables Control Cables for Motion Control Units	Motion Control Units (for all SYSMAC CS1/C200H)	R88A-CPG□□□M◊ The empty boxes in the model number are for the cable length. The cable can be 1, 2, 3, or 5 m long. The empty diamond in the model number is for the number of axes. One axis: 1, Two axes: 2
		Line-driver output type (High-speed type) for CJ1W-NC234/434	For 1 axis XW2Z-□□□J-G9 The empty boxes in the model number are for the cable length. The cable can be 1, 5, or 10 m long.
(6)	Control Cables Direct connection cable for Position Control Unit (High-speed type)	Line-driver output type (High-speed type) for CJ1W-NC234/434	For 2 axis XW2Z-□□□J-G1 The empty boxes in the model number are for the cable length. The cable can be 1, 5, or 10 m long.
		Open collector output type (High-speed type) for CJ1W-NC214/NC414	For 1 axis XW2Z-□□□J-G13 The empty boxes in the model number are for the cable length. The cable can be 1, or 3 m long.
		Open collector output type (High-speed type) for CJ1W-NC214/NC414	For 2 axis XW2Z-□□□J-G5 The empty boxes in the model number are for the cable length. The cable can be 1, or 3 m long.

**Note:** Insert the cable length into the boxes in the model number of cables. (3 m: 003, 5 m: 005, 10 m: 010)

Symbol	Name	Connected to	Model
(7)	Servo Relay Units	Position Control Unit: For CJ1W-NC113/NC133 For CS1W-NC113/NC133 (For C200HW-NC113)	For 1 axis XW2B-20J6-1B
		Position Control Unit: For CJ1W-NC213/NC233/NC413/NC433 For CS1W-NC213/NC233/NC413/NC433 (For C200HW-NC213/NC413)	For 2 axis XW2B-40J6-2B
		For CJ1M-CPU21/CPU22/CPU23	For 1 axis XW2B-20J6-8A For 2 axis XW2B-40J6-9A
		For FQM1-MMA22 (Analog output) For FQM1-MMP22 (Pulse train output)	For 2 axis XW2B-80J7-12A
		For CQM1H-PLB21	For 1 axis XW2B-20J6-3B
(8)	Servo Relay Unit Cables for Servo Drives	Position Control Unit: For CJ1W-NC□□3, CS1W/C200HW-NC□□□ (XW2B-20J6-1B, XW2B-40J6-2B) For CQM1H-PLB21 (XW2B-20J6-3B)	XW2Z-□□□J-B25 The empty boxes in the model number are for the cable length. The cable can be 1, or 2 m long.
		For CJ1M-CPU21/CPU22/CPU23 (XW2B-20J6-8A, XW2B-40J6-9A)	XW2Z-□□□J-B31 The empty boxes in the model number are for the cable length. The cable can be 1, or 2 m long.
		For FQM1-MMA22 (Analog output) (XW2B-80J7-12A)	XW2Z-□□□J-B27 The empty boxes in the model number are for the cable length. The cable can be 1, or 2 m long.
		For FQM1-MMP22 (Pulse train output) (XW2B-80J7-12A)	XW2Z-□□□J-B26 The empty boxes in the model number are for the cable length. The cable can be 1, or 2 m long.
(9)	Connection Cables	CJ1W line-driver output type for CJ1W-NC133	For 1 axis XW2Z-□□□J-A18 The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.
		CJ1W line-driver output type for CJ1W-NC233/NC433	For 2 axis XW2Z-□□□J-A19 The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.
		CS1W line-driver output type for CS1W-NC133	For 1 axis XW2Z-□□□J-A10 The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.
		CS1W line-driver output type for CS1W-NC233/NC433	For 2 axis XW2Z-□□□J-A11 The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.
		CJ1W open collector output type for CJ1W-NC113	For 1 axis XW2Z-□□□J-A14 The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.
		CJ1W open collector output type for CJ1W-NC213/NC413	For 2 axis XW2Z-□□□J-A15 The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.
		CS1W/C200HW open collector output type for CS1W-NC113 for C200HW-NC113	For 1 axis XW2Z-□□□J-A6 The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.
		CS1W/C200HW open collector output type for CS1W-NC213/NC413 for C200HW-NC213/NC413	For 2 axis XW2Z-□□□J-A7 The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.
		CSW/C200HW open collector output type for CJ1M-CPU21/CPU22/CPU23	For 1 axis XW2Z-□□□J-A33 The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.

**Note:** Insert the cable length into the boxes in the model number of cables. (3 m: 003, 5 m: 005, 10 m: 010)

# AC Servomotor/Drive OMNUC G5-series

Symbol	Name		Connected to			Model	
(9)	Connection Cables	Servo Relay Unit Cables for Position Control Units	For FQM1-MMA22 (Analog output)	General-purpose I/O (26 pin)	For 2 axis	XW2Z-□□□J-A28 The empty boxes in the model number are for the cable length. The cable can be 0.5, 1, or 2 m long.	
			For FQM1-MMA22 (Analog output)	Special I/O (40 pin)	For 2 axis	XW2Z-□□□J-A31 The empty boxes in the model number are for the cable length. The cable can be 0.5, 1, or 2 m long.	
			For FQM1-MMP22 (Pulse train output)	Special I/O (40 pin)	For 2 axis	XW2Z-□□□J-A30 The empty boxes in the model number are for the cable length. The cable can be 0.5, 1, or 2 m long.	
			For CQM1H-PLB21		For 1 axis	XW2Z-□□□J-A3 The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.	
(10)	General-purpose Control Cables with Connector on One End		Cables for General-purpose Controllers			R88A-CPG□□□S The empty boxes in the model number are for the cable length. The cable can be 1 or 2 m long.	
			Cables for General-Purpose Connection (Network Communication Type)			R88A-CPKB□□□S-E The empty boxes in the model number are for the cable length. The cable can be 1, or 2 m long.	
(11)	For Connector Terminal Block	Connector Terminal Block Cables	Cable for General-purpose Controllers			XW2Z-□□□J-B24 The empty boxes in the model number are for the cable length. The cable can be 1, or 2 m long.	
			Cable for MECHATROLINK-II / EtherCAT Communications			XW2Z-□□□J-B34 The empty boxes in the model number are for the cable length. The cable can be 1, or 2 m long.	
(12)	Connector- Terminal Block Conversion Units	Connector Terminal Block Cables	Cable for General-purpose Controllers		M3 screws	XW2B-50G4	
					M3.5 screws	XW2B-50G5	
					M3 screws	XW2D-50G6	
		Connector- Terminal Block Conversion Units	Cable for MECHATROLINK-II / EtherCAT Communications		M3 screws	XW2B-20G4	
					M3.5 screws	XW2B-20G5	
					M3 screws	XW2D-20G6	

**Note:** Insert the cable length into the boxes in the model number of cables. (3 m: 003, 5 m: 005, 10 m: 010)

## External Encoder Cable (for CN4)

Symbol	Name	Lengths	Model
(13)	External Encoder Cable (CN4) Flexible Cable Type	5 m	R88A-CRKM005SR-E
		10 m	R88A-CRKM010SR-E
		20 m	R88A-CRKM020SR-E

## Analog Monitor Cable (for CN5)

Symbol	Name	Lengths	Model
(14)	Analog Monitor Cable	1 m	R88A-CMK001S

## USB Communication Cable (for CN7)

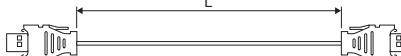
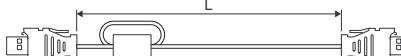
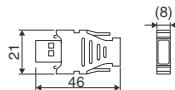
Symbol	Name	Lengths	Model
(15)	PC USB to Mini USB Connecting Cable with Ferrite	2 m	AX-CUSBM002-E

**Note:** Use a commercially available USB cable that is shielded, equipped with a ferrite core for noise immunity, and supporting for USB2.0. The Mini B type USB cable can be used.

## Safety Cable (for CN8)

Symbol	Name	Lengths	Model
(16)	Safety Connector with Cable	3 m	R88A-CSK003S-E

MECHATROLINK-II Communication Cable

Symbol	Name	Length (L)	Model (OMRON model number)	Yaskawa model number	Description
(17)	MECHATROLINK-II Communication Cable * Can be connected to R88D-GN and R88D-KN only.	0.5m	FNY-W6002-A5	JEPMC-W6002-A5-E	(without ring core and USB connector on both ends) 
		1m	FNY-W6002-01	JEPMC-W6002-01-E	
		3m	FNY-W6002-03	JEPMC-W6002-03-E	
		5m	FNY-W6002-05	JEPMC-W6002-05-E	
	MECHATROLINK-II Communication Cable	0.5m	FNY-W6003-A5	JEPMC-W6003-A5	(with ring core and USB connector on both ends) 
		1m	FNY-W6003-01	JEPMC-W6003-01	
		3m	FNY-W6003-03	JEPMC-W6003-03	
		5m	FNY-W6003-05	JEPMC-W6003-05	
		10m	FNY-W6003-10	JEPMC-W6003-10	
		20m	FNY-W6003-20	JEPMC-W6003-20	
		30m	FNY-W6003-30	JEPMC-W6003-30	
(18)	MECHATROLINK-II Terminating resistance	–	FNY-W6022	JEPMC-W6022	

EtherCAT Communication Cable

Symbol	Name	Description
(19)	Ethernet Cable	EtherCAT Communication Cables • Use a category 5 or higher cable with double, aluminum tape and braided shielding. Connector (Modular Plug) Specifications • Use a category 5 or higher, shielded connector.

Servo Drive Connectors

Connectors	Description	Model
CN1	Control I/O Connector	Analog/Pulse Train Input Servodrive (R88D-KT□)
		Network Communications Servodrive (R88D-KN□)
CN2	Encoder Connector	R88A-CN01R
CN4	External Encoder connector	R88A-CN41L
CN8	Safety I/O Signal Connector	R88A-CN81S
CNA	Main Circuit Power Supply Connector	[100VAC] 50W-400W [200VAC] 100W-1.5kW
		[200VAC] 2.0kW
		[400VAC] 600W-1.5kW
		[400VAC] 2.0kW
CNB	Servomotor Power Connector	[100VAC] 50W-400W [200VAC] 100W-1.5kW
		[400VAC] 600W-1.5kW
		[200VAC] 2.0kW
		[400VAC] 2.0kW
CNC	24Vdc Control Circuit Connector	[400VAC] 600W-2.0kW
CND	Regenerative Resistor Connector	[400VAC] 600W-1.5kW
		[200VAC] 2.0kW [400VAC] 2.0kW

Servomotor Connector

Description	Applicable Servomotor Capacity	Model
Servomotor Encoder Connector	[100 V/200 V] 3,000 r/min (50 to 750 W)	R88A-CN02R
	[100 V/200 V] 3,000 r/min (1 to 5 kW), 2,000 r/min, 1,000 r/min [400 V] 3,000 r/min, 2,000 r/min, 1,000 r/min	R88A-CN04R
Power cable connector	[100 V/200 V] 3,000 r/min (50 to 750 W)	R88A-CN11A
	[200 V] [400V] 1,500 r/min (7.5 to 15kW) 1,000 r/min (6.0kW)	R88A-CN21A-AP
Brake cable connector	[100 V/200 V] 3,000 r/min (50 to 750 W)	R88A-CN11B
	[200 V] [400V] 1,500 r/min (7.5 to 15kW) 1,000 r/min (6.0kW)	R88A-CN21B-AP

## **About Manuals**

Please read the relevant manuals of OMNUC G5-Series

<b>English Cat. No.</b>	<b>Japanese Cat. No.</b>	<b>Type</b>	<b>Name</b>
I571	SBCE-357	R88D-KT/R88M-K	OMNUC G5-SERIES AC SERVOMOTOR AND SERVO DRIVE USER'S MANUAL
I572	SBCE-358	R88D-KN□-ML2/R88M-K	OMNUC G5-SERIES MECHATROLINK-II Communications AC SERVOMOTOR AND SERVO DRIVE USER'S MANUAL
I576	SBCE-365	R88D-KN□-ECT/R88M-K	OMNUC G5-SERIES EtherCAT Communications AC SERVOMOTOR AND SERVO DRIVE USER'S MANUAL
W487	SBCE-359	CJ1W-NC□81/CJ1W-NC□82	CJ-series Position Control Unit Operation Manual
W446	SBCA-337	CXONE-AL□□C-V□/AL□□D-V□	CX-Programmer Operation Manual
W453	SBCE-337	CXONE-AL□C/D-V□ WS02-DRVCO1	CX-Drive OPERATION MANUAL

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# Ordering Information

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Read and Understand this Catalog

# AC Servomotor/Drive G5-series Pulse Train Input Type

## Interpreting Model Numbers

### Servo Drive Model Numbers

**R88D-K P 01 H**

(1) (2) (3) (4)

No	Item	Symbol	Specifications
(1) G5-series Servo Drive			
(2)	Drive Type	P	Pulse train input type
(3)	Maximum Applicable Servomotor Capacity	01	100 W
		02	200 W
		04	400 W
		08	750 W
		10	1 kW
		15	1.5 kW
		20	2 kW
		30	3 kW
		50	5 kW
(4)	Power Supply Voltage	H	200 VAC

### Servomotor Model Numbers

**R88M-K E 100 30 H -BO S2**

(1) (2) (3) (4) (5) (6)

No	Item	Symbol	Specifications
(1) G5-series Servomotor			
(2)	Motor Type	E	Economy type
–		–	
050		50 W	
100		100 W	
200		200 W	
400		400 W	
750		750 W	
900		900 W	
1K0		1 kW	
(3)	Servomotor Capacity	1K5	1.5 kW
		2K0	2 kW
		3K0	3 kW
		4K0	4 kW
		5K0	5 kW
		10	1,000 r/min
		20	2,000 r/min
		30	3,000 r/min
		H	200 VAC <b>INC</b>
		Blank	Straight shaft
(4)	Rated Rotation Speed	B	With brake
		O	With oil seal
		S2	With key and tap
(5)	Applied Voltage		
(6)	Option		

Note: **INC** incremental encoder: 20bit

**Understanding Decelerator Model Numbers (Backlash = 3' Max./Backlash = 15' Max.)**

Backlash = 3' Max.

**R88G-HPG 14A 05 100 S B J**

No	Item	Symbol	Specifications				
(1)	Decelerator for G□-Series Servomotors Backlash = 3' Max.						
(2)	Flange Size Number	11B	□40				
		14A	□60				
		20A	□90				
		32A	□120				
		50A	□170				
		65A	□230				
(3)	Gear Ratio	05	1/5				
		09	1/9 (only frame number 11B)				
		11	1/11 (except frame number 65A)				
		20	1/20 (only frame number 65A)				
		21	1/21 (except frame number 65A)				
		25	1/25 (only frame number 65A)				
		33	1/33				
		45	1/45				
(4)	Applicable Servomotor Capacity	050	50 W				
		100	100 W				
		200	200 W				
		400	400 W				
		750	750 W				
		900	900 W				
		1K0	1 kW				
		1K5	1.5 kW				
		2K0	2 kW				
		3K0	3 kW				
		4K0	4 kW				
		5K0	5 kW				
(5)	Motor Type	Blank	3,000-r/min cylindrical servomotors				
		S	2,000-r/min cylindrical servomotors				
		T	1,000-r/min cylindrical servomotors				
(6)	Backlash	B	Backlash = 3' Max				
(7)	Option	Blank	Straight shaft				
		J	With key and tap				

Backlash = 15' Max.

**R88G-VRSF 09 B 100 C J**

No	Item	Symbol	Specifications				
(1)	Decelerator for G□-Series Servomotors Backlash = 15' Max.						
(2)	Gear Ratio	05	1/5				
		09	1/9				
		15	1/15				
		25	1/25				
(3)	Flange Size Number	B	□52				
		C	□78				
		D	□98				
		050	50 W				
(4)	Applicable Servomotor Capacity	100	100 W				
		200	200 W				
		400	400 W				
		750	750 W				
		Blank	3,000-r/min cylindrical servomotors				
(5)	Motor Type	—	—				
(6)	Backlash	C	Backlash = 15' Max				
(7)	Option	J	With key (without tap)				

# AC Servomotor/Drive G5-series Pulse Train Input Type

## Ordering Information

### AC Servo Drives

#### Pulse train input type

Specifications		Model
Power Supply Voltage	Applicable Servomotor Capacity	
Single-phase 200VAC	100W	R88D-KP01H
	200W	R88D-KP02H
	400W	R88D-KP04H
	750W	R88D-KP08H
	1kW	R88D-KP10H
	1.5kW	R88D-KP15H
Three-phase 200VAC	2kW	R88D-KP20H
	3kW	R88D-KP30H
	5kW	R88D-KP50H

### AC Servomotors

#### <Cylinder Type>

#### 3,000-r/min servomotor

Specifications		Model
		Straight shaft with key and tap
Voltage	Rated output	Without oil seals
Without brake	50 W	R88M-KE05030H-S2
	100 W	R88M-KE10030H-S2
	200 W	R88M-KE20030H-S2
	400 W	R88M-KE40030H-S2
	750 W	R88M-KE75030H-S2
	1 kW	R88M-KE1K030H-S2
	1.5 kW	R88M-KE1K530H-S2
	2 kW	R88M-KE2K030H-S2
	3 kW	R88M-KE3K030H-S2
	4 kW	R88M-KE4K030H-S2
With brake	50 W	R88M-KE05030H-BS2
	100 W	R88M-KE10030H-BS2
	200 W	R88M-KE20030H-BS2
	400 W	R88M-KE40030H-BS2
	750 W	R88M-KE75030H-BS2
	1 kW	R88M-KE1K030H-BS2
	1.5 kW	R88M-KE1K530H-BS2
	2 kW	R88M-KE2K030H-BS2
	3 kW	R88M-KE3K030H-BS2
	4 kW	R88M-KE4K030H-BS2
	5 kW	R88M-KE5K030H-BS2

Note: Models with oil seals are also available.

Specifications		Model
		Straight shaft without key
Voltage	Rated output	Without oil seals
Without brake	50 W	R88M-KE05030H
	100 W	R88M-KE10030H
	200 W	R88M-KE20030H
	400 W	R88M-KE40030H
	750 W	R88M-KE75030H
	1 kW	R88M-KE1K030H
	1.5 kW	R88M-KE1K530H
	2 kW	R88M-KE2K030H
	3 kW	R88M-KE3K030H
	4 kW	R88M-KE4K030H
With brake	50 W	R88M-KE05030H-B
	100 W	R88M-KE10030H-B
	200 W	R88M-KE20030H-B
	400 W	R88M-KE40030H-B
	750 W	R88M-KE75030H-B
	1 kW	R88M-KE1K030H-B
	1.5 kW	R88M-KE1K530H-B
	2 kW	R88M-KE2K030H-B
	3 kW	R88M-KE3K030H-B
	4 kW	R88M-KE4K030H-B
	5 kW	R88M-KE5K030H-B

Note: Models with oil seals are also available.

2,000-r/min servomotor

Specifications		Model	
		Straight shaft with key and tap	
Voltage	Rated output	Without oil seals	
Without brake	200 V	1kW	R88M-KE1K020H-S2
		1.5kW	R88M-KE1K520H-S2
		2kW	R88M-KE2K020H-S2
		3kW	R88M-KE3K020H-S2
		4kW	R88M-KE4K020H-S2
		5kW	R88M-KE5K020H-S2
With brake	200 V	1kW	R88M-KE1K020H-BS2
		1.5kW	R88M-KE1K520H-BS2
		2kW	R88M-KE2K020H-BS2
		3kW	R88M-KE3K020H-BS2
		4kW	R88M-KE4K020H-BS2
		5kW	R88M-KE5K020H-BS2

Note: Models with oil seals are also available.

1,000-r/min servomotor

Specifications		Model	
		Straight shaft with key and tap	
Voltage	Rated output	Without oil seals	
Without brake	200 V	900 W	R88M-KE90010H-S2
		2 kW	R88M-KE2K010H-S2
		3 kW	R88M-KE3K010H-S2
With brake	200 V	900 W	R88M-KE90010H-BS2
		2 kW	R88M-KE2K010H-BS2
		3 kW	R88M-KE3K010H-BS2

Note: Models with oil seals are also available.

Specifications		Model	
		Straight shaft without key	
Voltage	Rated output	Without oil seals	
Without brake	200 V	1kW	R88M-KE1K020H
		1.5kW	R88M-KE1K520H
		2kW	R88M-KE2K020H
		3kW	R88M-KE3K020H
		4kW	R88M-KE4K020H
		5kW	R88M-KE5K020H
With brake	200 V	1kW	R88M-KE1K020H-B
		1.5kW	R88M-KE1K520H-B
		2kW	R88M-KE2K020H-B
		3kW	R88M-KE3K020H-B
		4kW	R88M-KE4K020H-B
		5kW	R88M-KE5K020H-B

Note: Models with oil seals are also available.

Specifications		Model	
		Straight shaft without key	
Voltage	Rated output	Without oil seals	
Without brake	200 V	900 W	R88M-KE90010H
		2 kW	R88M-KE2K010H
		3 kW	R88M-KE3K010H
With brake	200 V	900 W	R88M-KE90010H-B
		2 kW	R88M-KE2K010H-B
		3 kW	R88M-KE3K010H-B

Note: Models with oil seals are also available.

# AC Servomotor/Drive G5-series Pulse Train Input Type

## Decelerators (Backlash = 3' Max./Backlash = 15' Max.)

Backlash = 3' Max

<Cylinder Type>

● 3,000-r/min servomotors

**Straight shaft without key**

Motor capacity	Gear Ratio	Model (Straight shaft)
50 W	1/5	R88G-HPG11B05100B
	1/9	R88G-HPG11B09050B
	1/21	R88G-HPG14A21100B
	1/33	R88G-HPG14A33050B
	1/45	R88G-HPG14A45050B
100 W	1/5	R88G-HPG11B05100B
	1/11	R88G-HPG14A11100B
	1/21	R88G-HPG14A21100B
	1/33	R88G-HPG20A33100B
	1/45	R88G-HPG20A45100B
200 W	1/5	R88G-HPG14A05200B
	1/11	R88G-HPG14A11200B
	1/21	R88G-HPG20A21200B
	1/33	R88G-HPG20A33200B
	1/45	R88G-HPG20A45200B
400 W	1/5	R88G-HPG14A05400B
	1/11	R88G-HPG20A11400B
	1/21	R88G-HPG20A21400B
	1/33	R88G-HPG32A33400B
	1/45	R88G-HPG32A45400B
750 W	1/5	R88G-HPG20A05750B
	1/11	R88G-HPG20A11750B
	1/21	R88G-HPG32A21750B
	1/33	R88G-HPG32A33750B
	1/45	R88G-HPG32A45750B
1 kW	1/5	R88G-HPG32A052K0B
	1/11	R88G-HPG32A112K0B
	1/21	R88G-HPG32A211K5B
	1/33	R88G-HPG50A332K0B
	1/45	R88G-HPG50A451K5B
1.5 kW	1/5	R88G-HPG32A052K0B
	1/11	R88G-HPG32A112K0B
	1/21	R88G-HPG32A211K5B
	1/33	R88G-HPG50A332K0B
	1/45	R88G-HPG50A451K5B
2 kW	1/5	R88G-HPG32A052K0B
	1/11	R88G-HPG32A112K0B
	1/21	R88G-HPG50A212K0B
	1/33	R88G-HPG50A332K0B
3 kW	1/5	R88G-HPG32A053K0B
	1/11	R88G-HPG50A113K0B
	1/21	R88G-HPG50A213K0B
4 kW	1/5	R88G-HPG32A054K0B
1/11	R88G-HPG50A115K0B	
5 kW	1/5	R88G-HPG50A055K0B
	1/11	R88G-HPG50A115K0B

**Note:** 1. The standard models have a straight shaft.

2. To order a Servomotor with a straight shaft with key, add "J" to the end of the model number, in the place indicated by the box.

## ● 2,000-r/min servomotors

**Straight shaft without key**

Motor capacity	Gear Ratio	Model (Straight shaft)
1 kW	1/5	R88G-HPG32A053K0B
	1/11	R88G-HPG32A112K0SB
	1/21	R88G-HPG32A211K0SB
	1/33	R88G-HPG50A332K0SB
	1/45	R88G-HPG50A451K0SB
1.5 kW	1/5	R88G-HPG32A053K0B
	1/11	R88G-HPG32A112K0SB
	1/21	R88G-HPG50A213K0B
	1/33	R88G-HPG50A332K0SB
2 kW	1/5	R88G-HPG32A053K0B
	1/11	R88G-HPG32A112K0SB
	1/21	R88G-HPG50A213K0B
	1/33	R88G-HPG50A332K0SB
3 kW	1/5	R88G-HPG32A054K0B
	1/11	R88G-HPG50A115K0B
	1/21	R88G-HPG50A213K0SB
	1/25	R88G-HPG65A253K0SB
4 kW	1/5	R88G-HPG50A055K0SB
	1/11	R88G-HPG50A115K0SB
	1/20	R88G-HPG65A205K0SB
	1/25	R88G-HPG65A255K0SB
5 kW	1/5	R88G-HPG50A055K0SB
	1/11	R88G-HPG50A115K0SB
	1/20	R88G-HPG65A205K0SB
	1/25	R88G-HPG65A255K0SB

**Note:** 1. The standard models have a straight shaft.

2. To order a Servomotor with a straight shaft with key, add "J" to the end of the model number, in the place indicated by the box.

● 1,000-r/min servomotors

**Straight shaft without key**

Motor capacity	Gear Ratio	Model (Straight shaft)
900 W	1/5	R88G-HPG32A05900TB
	1/11	R88G-HPG32A11900TB
	1/21	R88G-HPG50A21900TB
	1/33	R88G-HPG50A33900TB
2 kW	1/5	R88G-HPG32A052K0TB
	1/11	R88G-HPG50A112K0TB
	1/21	R88G-HPG50A212K0TB
	1/25	R88G-HPG65A255K0SB
3 kW	1/5	R88G-HPG50A055K0SB
	1/11	R88G-HPG50A115K0SB
	1/20	R88G-HPG65A205K0SB
	1/25	R88G-HPG65A255K0SB

**Note:** 1. The standard models have a straight shaft.

2. To order a Servomotor with a straight shaft with key, add "J" to the end of the model number, in the place indicated by the box.

Backlash = 15' Max  
<Cylinder Type>

● 3,000-r/min servomotors

**Straight shaft with key**

Motor capacity	Gear Ratio	Model (Straight shaft)
50 W	1/5	R88G-VRSF05B100CJ
	1/9	R88G-VRSF09B100CJ
	1/15	R88G-VRSF15B100CJ
	1/25	R88G-VRSF25B100CJ
100 W	1/5	R88G-VRSF05B100CJ
	1/9	R88G-VRSF09B100CJ
	1/15	R88G-VRSF15B100CJ
	1/25	R88G-VRSF25B100CJ
200 W	1/5	R88G-VRSF05B200CJ
	1/9	R88G-VRSF09C200CJ
	1/15	R88G-VRSF15C200CJ
	1/25	R88G-VRSF25C200CJ
400 W	1/5	R88G-VRSF05C400CJ
	1/9	R88G-VRSF09C400CJ
	1/15	R88G-VRSF15C400CJ
	1/25	R88G-VRSF25C400CJ
750 W	1/5	R88G-VRSF05C750CJ
	1/9	R88G-VRSF09D750CJ
	1/15	R88G-VRSF15D750CJ
	1/25	R88G-VRSF25D750CJ

# AC Servomotor/Drive G5-series Pulse Train Input Type

## Accessories and Cables

### ■ Connection Cables (Power Cables, Brake Cables, Encoder Cables)

#### <Non-flexible Cables>

##### Power cable

Specifications	Without brake Model	With brake Model
[200 V] 3,000-r/min Servomotors of 50 to 750 W	3 m R88A-CAGA003S	-
	5 m R88A-CAGA005S	
	10 m R88A-CAGA010S	
	15 m R88A-CAGA015S	
	20 m R88A-CAGA020S	
[200 V] 3,000-r/min Servomotors of 1 to 2 kW 2,000-r/min Servomotors of 1 to 2 kW 1,000-r/min Servomotors of 900 W	3 m R88A-CAGB003S	R88A-CAGB003B
	5 m R88A-CAGB005S	R88A-CAGB005B
	10 m R88A-CAGB010S	R88A-CAGB010B
	15 m R88A-CAGB015S	R88A-CAGB015B
	20 m R88A-CAGB020S	R88A-CAGB020B
[200 V] 3,000-r/min Servomotors of 3 to 5 kW 2,000-r/min Servomotors of 3 to 5 kW 1,000-r/min Servomotors of 2 to 3 kW	3 m R88A-CAGD003S	R88A-CAGD003B
	5 m R88A-CAGD005S	R88A-CAGD005B
	10 m R88A-CAGD010S	R88A-CAGD010B
	15 m R88A-CAGD015S	R88A-CAGD015B
	20 m R88A-CAGD020S	R88A-CAGD020B

**Note:** Different connectors are used for the motor power and the brake on 200-V, 3,000-r/min Servomotors of 50 to 750 W.

When using a Servomotor with a brake, two cables are required: a Power Cable without Brake and a Brake cable.

##### Brake Cable

Specifications	Model
[200 V] 3,000-r/min Servomotors of 50 to 750 W	3 m R88A-CAGA003B
	5 m R88A-CAGA005B
	10 m R88A-CAGA010B
	15 m R88A-CAGA015B
	20 m R88A-CAGA020B

##### Encoder Cable

Specifications	Model
[200 V] 3,000-r/min Servomotors of 50 to 750 W	3 m R88A-CRGB003C
	5 m R88A-CRGB005C
	10 m R88A-CRGB010C
	15 m R88A-CRGB015C
	20 m R88A-CRGB020C
[200 V] 3,000-r/min Servomotors of 1 to 5 kW 2,000-r/min Servomotors of 1 to 5 kW 1,000-r/min Servomotors of 900W to 3kW	3 m R88A-CRGC003N
	5 m R88A-CRGC005N
	10 m R88A-CRGC010N
	15 m R88A-CRGC015N
	20 m R88A-CRGC020N

<Flexible Cables>

Power cable

Specifications	Without brake Model	With brake Model
[200 V] 3,000-r/min Servomotors of 50 to 750 W	3 m R88A-CAGA003SR	-
	5 m R88A-CAGA005SR	
	10 m R88A-CAGA010SR	
	15 m R88A-CAGA015SR	
	20 m R88A-CAGA020SR	
[200 V] 3,000-r/min Servomotors of 1 to 2 kW 2,000-r/min Servomotors of 1 to 2 kW 1,000-r/min Servomotors of 900 W	3 m R88A-CAGB003SR	R88A-CAGB003BR
	5 m R88A-CAGB005SR	R88A-CAGB005BR
	10 m R88A-CAGB010SR	R88A-CAGB010BR
	15 m R88A-CAGB015SR	R88A-CAGB015BR
	20 m R88A-CAGB020SR	R88A-CAGB020BR
[200 V] 3,000-r/min Servomotors of 3 to 5 kW 2,000-r/min Servomotors of 3 to 5 kW 1,000-r/min Servomotors of 2 to 3 kW	3 m R88A-CAGD003SR	R88A-CAGD003BR
	5 m R88A-CAGD005SR	R88A-CAGD005BR
	10 m R88A-CAGD010SR	R88A-CAGD010BR
	15 m R88A-CAGD015SR	R88A-CAGD015BR
	20 m R88A-CAGD020SR	R88A-CAGD020BR

**Note:** Different connectors are used for the motor power and the brake on 200-V, 3,000-r/min Servomotors of 50 to 750 W.

When using a Servomotor with a brake, two cables are required: a Power Cable without Brake and a Brake cable.

Brake Cable

Specifications	Model
[200 V] 3,000-r/min Servomotors of 50 to 750 W	3 m R88A-CAGA003BR
	5 m R88A-CAGA005BR
	10 m R88A-CAGA010BR
	15 m R88A-CAGA015BR
	20 m R88A-CAGA020BR

Encoder Cable

Specifications	Model
[200 V] 3,000-r/min Servomotors of 50 to 750 W	3 m R88A-CRGB003CR
	5 m R88A-CRGB005CR
	10 m R88A-CRGB010CR
	15 m R88A-CRGB015CR
	20 m R88A-CRGB020CR
[200 V] 3,000-r/min Servomotors of 1 to 5 kW 2,000-r/min Servomotors of 1 to 5 kW 1,000-r/min Servomotors of 900W to 3kW	3 m R88A-CRGC003NR
	5 m R88A-CRGC005NR
	10 m R88A-CRGC010NR
	15 m R88A-CRGC015NR
	20 m R88A-CRGC020NR

# AC Servomotor/Drive G5-series Pulse Train Input Type

## ■ Cable/Connector Connector

Specifications	Model
Control I/O Connector (CN1)	R88A-CNU11C
Encoder Connector (CN2)	R88A-CNW01R

## Servomotor Connector

Specifications	Model
Servomotor Connector for Encoder Cable	[200 V] 3,000 r/min (50 to 750 W)
Power Cable Connector	(750 W max.)
Brake Cable Connector	(750 W max.)

## Analog Monitor Cable

Name	Length	Model
Analog Monitor Cable	1 m	R88A-CMK001S

## ■ Control Cables

### Control Cables(for Connector Terminal Block)

Name	Specifications	Model
Connector Terminal Block Cables	1m 2m	XW2Z-100J-B24 XW2Z-200J-B24
Connector Terminal Block Conversion Unit	M3 screws M3.5 screws M3 screws	XW2B-50G4 XW2B-50G5 XW2D-50G6

## Connection Cables (for CN1)

Specifications Name	Unit	The number of axes	Length	Model
Position Control Unit (High-speed type) for Line-driver output	CJ1W-NC234/434	for 1 axis	1 m	XW2Z-100J-G9
			5 m	XW2Z-500J-G9
			10 m	XW2Z-10MJ-G9
		for 2 axis	1 m	XW2Z-100J-G1
			5 m	XW2Z-500J-G1
			10 m	XW2Z-10MJ-G1
Position Control Unit (High-speed type) for Open collector output	CJ1W-NC214/NC414	for 1 axis	1 m	XW2Z-100J-G13
			3 m	XW2Z-300J-G13
		for 2 axis	1 m	XW2Z-100J-G5
			3 m	XW2Z-300J-G5
General-purpose Control Connector on One End		–	1 m	R88A-CPG001S
		–	2 m	R88A-CPG002S

**Servo Relay Units (for CN1)**

Specifications	The number of axes	Model
Position Control Unit: For CJ1W-NC113/NC133 For CS1W-NC113/NC133 For C200HW-NC113	for 1 axis	<b>XW2B-20J6-1B</b>
Position Control Unit: For CJ1W-NC213/NC233/NC413/NC433 For CS1W-NC213/NC233/NC413/NC433 For C200HW-NC213/NC413	for 2 axis	<b>XW2B-40J6-2B</b>
For CJ2M-CPU31/CPU32/CPU33/CPU34/CPU35 For CJ2M-CPU11/CPU12/CPU13/CPU14/CPU15	for 1 axis	<b>XW2B-20J6-8A</b>
	for 2 axis	<b>XW2B-40J6-9A</b>
For FQM1-MMP22 (Pulse train output)	for 2 axis	<b>XW2B-80J7-12A</b>
For CQM1-CPU43-V1	for 1 axis	<b>XW2B-20J6-3B</b>

**Servo Relay Unit cable (for Servo Drive/CN1)**

Specifications	Length	Model
Position Control Unit: For CJ1W-NC□□3□ For CS1W/C200HW-NC□□□ (XW2B-20J6-1B, XW2B-40J6-2B)	1m	<b>XW2Z-100J-B25</b>
	2 m	<b>XW2Z-200J-B25</b>
For CJ2M-CPU31/CPU32/CPU33/CPU34/CPU35 For CJ2M-CPU11/CPU12/CPU13/CPU14/CPU15 (XW2B-20J6-8A, XW2B-40J6-9A)	1 m	<b>XW2Z-100J-B31</b>
	2 m	<b>XW2Z-200J-B31</b>
For FQM1-MMP22 (Pulse train output) (XW2B-80J7-12A)	1 m	<b>XW2Z-100J-B26</b>
	2 m	<b>XW2Z-200J-B26</b>

**Servo Relay Unit cable (for Position Control Unit)**

Specifications	The number of axes	Length	Model
CS1W/C200HW open collector output type For CS1W-NC113 For C200HW-NC113 (XW2B-20J6-1B)	for 1 axis	0.5 m	<b>XW2Z-050J-A6</b>
		1 m	<b>XW2Z-100J-A6</b>
CS1W/C200HW open collector output type For CS1W-NC213/NC413 For C200HW-NC213/NC413 (XW2B-40J6-2B)	for 2 axis	0.5 m	<b>XW2Z-050J-A7</b>
		1 m	<b>XW2Z-100J-A7</b>
CS1W line-driver output type For CS1W-NC133 (XW2B-20J6-1B)	for 1 axis	0.5 m	<b>XW2Z-050J-A10</b>
		1 m	<b>XW2Z-100J-A10</b>
CS1W line-driver output type For CS1W-NC233/NC433 (XW2B-40J6-2B)	for 2 axis	0.5 m	<b>XW2Z-050J-A11</b>
		1 m	<b>XW2Z-100J-A11</b>
CJ1W open collector output type For CJ1W-NC113 (XW2B-20J6-1B)	for 1 axis	0.5 m	<b>XW2Z-050J-A14</b>
		1 m	<b>XW2Z-100J-A14</b>
CJ1W open collector output type For CJ1W-NC213/NC413 (XW2B-40J6-2B)	for 2 axis	0.5 m	<b>XW2Z-050J-A15</b>
		1 m	<b>XW2Z-100J-A15</b>
CJ1W line-driver output type For CJ1W-NC133 (XW2B-20J6-1B)	for 1 axis	0.5 m	<b>XW2Z-050J-A18</b>
		1 m	<b>XW2Z-100J-A18</b>
CJ1W line-driver output type For CJ1W-NC233/NC433 (XW2B-40J6-2B)	for 2 axis	0.5 m	<b>XW2Z-050J-A19</b>
		1 m	<b>XW2Z-100J-A19</b>
CJ1M open collector output type For CJ2M-CPU31/CPU32/CPU33/CPU34/CPU35 For CJ2M-CPU11/CPU12/CPU13/CPU14/CPU15 (XW2B-20J6-8A, XW2B-40J6-9A)	for 1 axis	0.5 m	<b>XW2Z-050J-A33</b>
		1 m	<b>XW2Z-100J-A33</b>
For FQM1-MMP22 (Pulse train output) (XW2B-80J7-12A)	General purpose I/O (26 pin)	0.5 m	<b>XW2Z-050J-A28</b>
		1 m	<b>XW2Z-100J-A28</b>
		2 m	<b>XW2Z-200J-A28</b>
	Special I/O(40 pin)	0.5 m	<b>XW2Z-050J-A30</b>
		1 m	<b>XW2Z-100J-A30</b>
		2 m	<b>XW2Z-200J-A30</b>

# AC Servomotor/Drive G5-series Pulse Train Input Type

## ■ Peripheral Devices (External Regeneration Resistors, Reactors, Mounting Brackets)

### External Regeneration Resistors

Specifications	Model
80 W 50 Ω	R88A-RR08050S
80 W 100 Ω	R88A-RR080100S
220 W 47 Ω	R88A-RR22047S1
500 W 20 Ω	R88A-RR50020S

### Reactors

Specifications	Model
R88D-KP01H(For single-phase input)	3G3AX-DL2002
R88D-KP02H(For single-phase input)	3G3AX-DL2004
R88D-KP04H(For single-phase input)	3G3AX-DL2007
R88D-KP08H/-KP10H(For single-phase input)	3G3AX-DL2015
R88D-KP15H(For single-phase input)	3G3AX-DL2022
R88D-KP01H/-KP02H/-KP04H/KP08H/-KP10H/-KP15H(For three-phase input)	3G3AX-AL2025
R88D-KP20H/-KP30H	3G3AX-AL2055
R88D-KP50H	3G3AX-AL2110

### Mounting Brackets (L Brackets for Rack Mounting)

Specifications	Model
R88D-KP01H/-KP02H	R88A-TK01K
R88D-KP04H	R88A-TK02K
R88D-KP08H	R88A-TK03K
R88D-KP10H/-KP15H	R88A-TK04K

## ■ Software

### FA Integrated Tool Package CX-One

Product name	Specifications	Number of licenses	Media	Model	Standards
<b>FA Integrated Tool Package CX-One Ver. 4.□</b>	<p>The CX-One is a comprehensive software package that integrates Support Software for OMRON PLCs and components.</p> <p>CX-One runs on following OS. OS: Windows XP (Service Pack 3 or higher), Vista or 7 <b>Note:</b> Except for Windows XP 64-bit version.</p> <p>CX-One Version.4.□ includes CX-Drive Ver.2.□. For details, refer to the CX-One catalog(Cat.No.R134).</p>	1 license *1	DVD *2	<b>CXONE-AL01D-V4</b>	—

\*1. Multi licenses are available for the CX-One (3, 10, 30, or 50 licenses).

\*2. The CX-One is also available on CD (CXONE-AL□□C-V4).

## Combination table

### Servo Drive and Servomotor Combinations (3,000 r/min, 2,000 r/min, 1,000 r/min)

#### <Cylinder Type>

##### ● 3,000-r/min servomotors

Power Supply Voltage	Servo Drive Model Numbers	Servomotor Model Numbers	
		Output	With incremental encoder
Single-phase/ three-phase 200VAC	R88D-KP01H *	50 W *	R88M-KE05030H-□ *
	R88D-KP01H	100 W	R88M-KE10030H-□
	R88D-KP02H	200 W	R88M-KE20030H-□
	R88D-KP04H	400 W	R88M-KE40030H-□
	R88D-KP08H	750 W	R88M-KE75030H-□
	R88D-KP15H *	1 kW *	R88M-KE1K030H-□
	R88D-KP15H	1.5 kW	R88M-KE1K530H-□
Three-phase 200VAC	R88D-KP20H	2 kW	R88M-KE2K030H-□
	R88D-KP30H	3 kW	R88M-KE3K030H-□
	R88D-KP50H*	4 kW *	R88M-KE4K030H-□
	R88D-KP50H	5 kW	R88M-KE5K030H-□

\* Please note the capacity of Servo Drive and Servomotor are not same in this combination.

##### ● 2,000-r/min servomotors

Power Supply Voltage	Servo Drive Model Numbers	Servomotor Model Numbers	
		Output	With incremental encoder
Single-phase/ three-phase 200VAC	R88D-KP10H	1 kW	R88M-KE1K020H-□
	R88D-KP15H	1.5 kW	R88M-KE1K520H-□
Three-phase 200VAC	R88D-KP20H	2 kW	R88M-KE2K020H-□
	R88D-KP30H	3 kW	R88M-KE3K020H-□
	R88D-KP50H *	4 kW *	R88M-KE4K020H-□ *
	R88D-KP50H	5 kW	R88M-KE5K020H-□

\* Please note the capacity of Servo Drive and Servomotor are not same in this combination.

##### ● 1,000-r/min servomotors

Power Supply Voltage	Servo Drive Model Numbers	Servomotor Model Numbers	
		Output	With incremental encoder
Single-phase/ three-phase 200VAC	R88D-KP15H *	900 W *	R88M-KE90010H-□ *
Three-phase 200VAC	R88D-KP30H *	2 kW *	R88M-KE2K010H-□ *
	R88D-KP50H *	3 kW *	R88M-KE3K010H-□ *

\* Please note the capacity of Servo Drive and Servomotor are not same in this combination.

# AC Servomotor/Drive G5-series Pulse Train Input Type

## Servomotor and Decelerator Combinations (3,000 r/min, 2,000 r/min, 1,000 r/min)

### <Cylinder Type>

#### ● 3,000-r/min servomotors

Motor model	1/5	1/11 (1/9 for flange size No.11)	1/21	1/33	1/45
R88M-KE05030□	R88G-HPG11B05100B□ (Also used with R88M-KE10030□)	R88G-HPG11B09050B□ (Gear ratio 1/9)	R88G-HPG14A21100B□ (Also used with R88M-KE10030□)	R88G-HPG14A33050B□	R88G-HPG14A45050B□
R88M-KE10030□	R88G-HPG11B05100B□	R88G-HPG14A11100B□	R88G-HPG14A21100B□	R88G-HPG20A33100B□	R88G-HPG20A45100B□
R88M-KE20030□	R88G-HPG14A05200B□	R88G-HPG14A11200B□	R88G-HPG20A21200B□	R88G-HPG20A33200B□	R88G-HPG20A45200B□
R88M-KE40030□	R88G-HPG14A05400B□	R88G-HPG20A11400B□	R88G-HPG20A21400B□	R88G-HPG32A33400B□	R88G-HPG32A45400B□
R88M-KE75030□	R88G-HPG20A05750B□	R88G-HPG20A11750B□	R88G-HPG32A21750B□	R88G-HPG32A33750B□	R88G-HPG32A45750B□
R88M-KE1K030□	R88G-HPG32A052K0B□ (Also used with R88M-KE2K030□)	R88G-HPG32A112K0B□ (Also used with R88M-KE2K030□)	R88G-HPG32A211K5B□ (Also used with R88M-KE1K030□)	R88G-HPG50A332K0B□ (Also used with R88M-KE2K030□)	R88G-HPG50A451K5B□ Also used with R88M-KE1K530□
R88M-KE1K530□	R88G-HPG32A052K0B□ (Also used with R88M-KE2K030□)	R88G-HPG32A112K0B□ (Also used with R88M-KE2K030□)	R88G-HPG32A211K5B□	R88G-HPG50A332K0B□ (Also used with R88M-KE2K030□)	R88G-HPG50A451K5B□
R88M-KE2K030□	R88G-HPG32A052K0B□	R88G-HPG32A112K0B□	R88G-HPG50A212K0B□	R88G-HPG50A332K0B□	—
R88M-KE3K030□	R88G-HPG32A053K0B□	R88G-HPG50A113K0B□	R88G-HPG50A213K0B□	—	—
R88M-KE4K030□	R88G-HPG32A054K0B□	R88G-HPG50A115K0B□ (Also used with R88M-KE5K030□)	—	—	—
R88M-KE5K030□	R88G-HPG50A055K0B□	R88G-HPG50A115K0B□	—	—	—

#### ● 2,000-r/min servomotors

Motor model	1/5	1/11	1/21 (1/20 for flange size No.65)	1/33 (1/25 for flange size No.65)	1/45
R88M-KE1K020□	R88G-HPG32A053K0B□ (Also used with R88M-KE3K030□)	R88G-HPG32A112K0SB□ (Also used with R88M-KE2K020□)	R88G-HPG32A211K0SB□	R88G-HPG50A332K0SB□ (Also used with R88M-KE2K020□)	R88G-HPG50A451K0SB□
R88M-KE1K520□	R88G-HPG32A053K0B□ (Also used with R88M-KE3K030□)	R88G-HPG32A112K0SB□ (Also used with R88M-KE2K020□)	R88G-HPG50A213K0B□ (Also used with R88M-KE3K030□)	R88G-HPG50A332K0SB□ (Also used with R88M-KE2K020□)	—
R88M-KE2K020□	R88G-HPG32A053K0B□ (Also used with R88M-KE3K030□)	R88G-HPG32A112K0SB□	R88G-HPG50A213K0B□ (Also used with R88M-KE3K030□)	R88G-HPG50A332K0SB□	—
R88M-KE3K020□	R88G-HPG32A054K0B□ (Also used with R88M-KE4K030□)	R88G-HPG50A115K0B□ (Also used with R88M-KE5K030□)	R88G-HPG50A213K0SB□	R88G-HPG65A253K0SB□	—
R88M-KE4K020□	R88GHPG50A055K0SB□ (Also used with R88M-KE5K020□)	R88G-HPG50A115K0SB□ (Also used with R88M-KE3K030□)	R88G-HPG65A205K0SB□ (Also used with R88M-KE3K030□)	R88G-HPG65A255K0SB□ (Also used with R88M-KE5K020□)	—
R88M-KE5K020□	R88GHPG50A055K0SB□	R88G-HPG50A115K0SB□	R88G-HPG65A205K0SB□	R88G-HPG65A255K0SB□	—

#### ● 1,000-r/min servomotors

Motor model	1/5	1/11	1/21 (1/20 for flange size No.65)	1/33 (1/25 for flange size No.65)
R88M-KE90010□	R88G-HPG32A05900TB□	R88G-HPG32A11900TB□	R88G-HPG50A21900TB□	R88G-HPG50A33900TB□
R88M-KE2K010□	R88G-HPG32A052K0TB□	R88G-HPG50A112K0TB□	R88G-HPG50A212K0TB□ (Also used with R88M-KE5K020□)	R88G-HPG65A255K0SB□ (Also used with R88M-KE5K020□)
R88M-KE3K010□	R88G-HPG50A055K0SB□ (Also used with R88M-KE5K020□)	R88G-HPG50A115K0SB□ (Also used with R88M-KE5K020□)	R88G-HPG65A205K0SB□ (Also used with R88M-KE5K020□)	R88G-HPG65A255K0SB□ (Also used with R88M-KE5K020□)

## Controller Combinations

### ● Servo Relay Units and Cables

Select the Servo Relay Unit and Cable according to the model number of the Position Control Unit being used.

Position Control Unit	Position Control Unit Cable	Servo Relay Unit		Servo Drive Cable
CS1W-NC113	XW2Z-□□□J-A6	XW2B-20J6-1B	XW2Z-□□□J-B25	
C200HW-NC113				
CS1W-NC213		XW2B-40J6-2B		
CS1W-NC413				
C200HW-NC213		XW2B-20J6-1B		
C200HW-NC413				
CS1W-NC133	XW2Z-□□□J-A10	XW2B-40J6-2B		
CS1W-NC233	XW2Z-□□□J-A11			
CS1W-NC433	XW2Z-□□□J-A14	XW2B-20J6-1B		
CJ1W-NC113	XW2Z-□□□J-A15	XW2B-40J6-2B		
CJ1W-NC213	XW2Z-□□□J-A18	XW2B-20J6-1B		
CJ1W-NC413	XW2Z-□□□J-A19	XW2B-40J6-2B		
CJ2M-CPU31	XW2Z-□□□J-A33	For 1 axis	XW2B-20J6-8A	XW2Z-□□□J-B31
CJ2M-CPU32		For 2 axis	XW2B-40J6-9A	
CJ2M-CPU33				
CJ2M-CPU34				
CJ2M-CPU35				
CJ2M-CPU11				
CJ2M-CPU12				
CJ2M-CPU13				
CJ2M-CPU14				
CJ2M-CPU15				
FQM1-MMP22	General purpose I/O	XW2Z-□□□J-A28	XW2B-80J7-12A	XW2Z-□□□J-B26
	Special I/O	XW2Z-□□□J-A30		

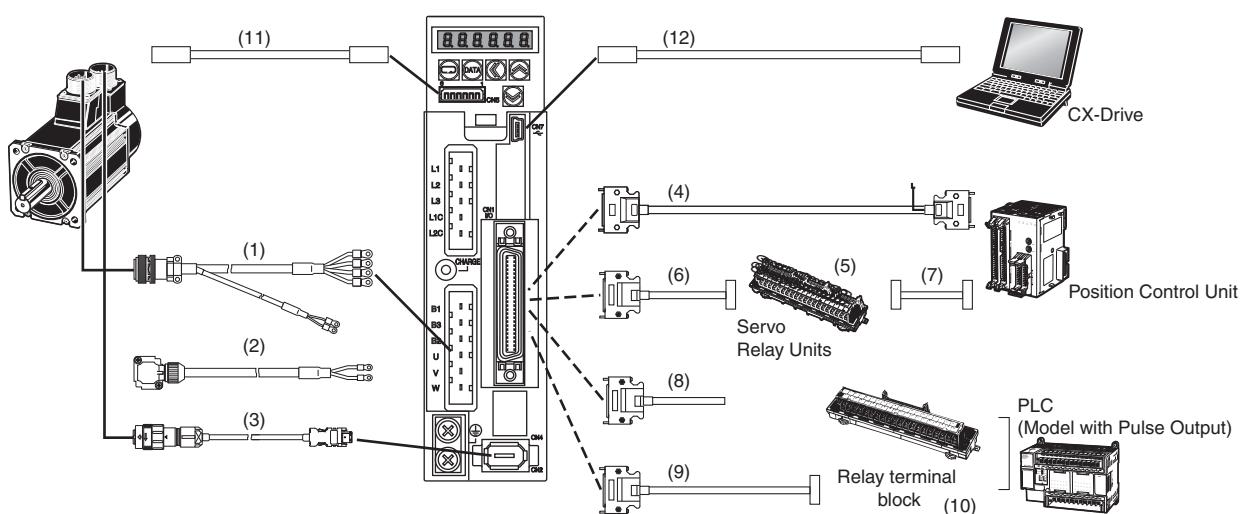
**Note:** 1. Insert the cable length into the boxes in the model number (□□□). Position Control Unit cables come in two lengths: 0.5 m and 1 m (some are also available in lengths of 2 m). Servo Driver Cables also come in two lengths: 1 m and 2 m.

2. Two Servo Driver Cables are required if 2-axis control is performed using one Position Control Unit.
3. Direct cable is available for CJ1W-NC□□4 Position Control Unit (High-Speed type).

Specifications	The number of axes	Model
For CJ1W-NC214/-NC414 (open collector output type)	1 axis	XW2Z-□□□J-G13
For CJ1W-NC214/-NC414 (open collector output type)	2 axis	XW2Z-□□□J-G5
For CJ1W-NC234/-NC434 (line-driver output type)	1 axis	XW2Z-□□□J-G9
For CJ1W-NC234/-NC434 (line-driver output type)	2 axis	XW2Z-□□□J-G1

# AC Servomotor/Drive G5-series Pulse Train Input Type

## Cable Combinations



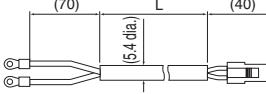
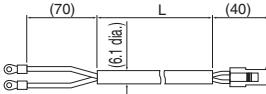
**Servomotor Power Cables (For CNB)**

Symbol		Name	Connected to	Model	Description	
(1)	Non-flexible Cables	Without Brakes	[200 V] Cylindrical Servomotors, 3,000 r/min, 50 to 750 W	R88A-CAGA□□□S The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, or 20 m long.		<b>[Servomotor Connector]</b> Connector: 172159-1 (Tyco Electronics AMP KK) Connector pins: 170362-1 (Tyco Electronics AMP KK) 170366-1 (Tyco Electronics AMP KK)
			[200 V] Cylindrical Servomotors, 3,000 r/min, 1 to 2 kW Cylindrical Servomotors, 2,000 r/min, 1 to 2 kW Cylindrical Servomotors, 1,000 r/min, 900 W	R88A-CAGB□□□S The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, or 20 m long.		<b>[Servomotor Connector]</b> Straight plug: N/MS3106B20-4S (Japan Aviation Electronics Industry, Ltd.) Cable clamp: N/MS3057-12A (Japan Aviation Electronics Industry, Ltd.)
			[200 V] Cylindrical Servomotors, 3,000 r/min, 3 to 5 kW Cylindrical Servomotors, 2,000 r/min, 3 to 5 kW Cylindrical Servomotors, 1,000 r/min, 2 to 3 kW	R88A-CAGD□□□S The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, or 20 m long.		<b>[Servomotor Connector]</b> Straight plug: N/MS3106B22-22S (Japan Aviation Electronics Industry, Ltd.) Cable clamp: N/MS3057-12A (Japan Aviation Electronics Industry, Ltd.)
		With Brakes	[200 V] Cylindrical Servomotors, 3,000 r/min, 1 to 2 kW Cylindrical Servomotors, 2,000 r/min, 1 to 2 kW Cylindrical Servomotors, 1,000 r/min, 900 W	<b>Note:</b> Different connectors are used for the motor power and the brake on 200-V, 3,000-r/min Servomotors of 50 to 750 W. When using a Servomotor with a brake, two cables are required: a Power Cable without Brake and a Brake Cable.		<b>[Servomotor Connector]</b> Straight plug: N/MS3106B20-18S (Japan Aviation Electronics Industry, Ltd.) Cable clamp: N/MS3057-12A (Japan Aviation Electronics Industry, Ltd.)
			[200 V] Cylindrical Servomotors, 3,000 r/min, 3 to 5 kW Cylindrical Servomotors, 2,000 r/min, 3 to 5 kW Cylindrical Servomotors, 1,000 r/min, 2 to 3 kW	R88A-CAGD□□□B The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, or 20 m long.		<b>[Servomotor Connector]</b> Straight plug: N/MS3106B24-11S (Japan Aviation Electronics Industry, Ltd.) Cable clamp: N/MS3057-16A (Japan Aviation Electronics Industry, Ltd.)
	Flexible Cables	Without Brakes	[200 V] Cylindrical Servomotors, 3,000 r/min, 50 to 750 W	R88A-CAGA□□□SR The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, or 20 m long.		<b>[Servomotor Connector]</b> Connector: 172159-1 (Tyco Electronics AMP KK) Connector pins: 170362-1 (Tyco Electronics AMP KK) 170366-1 (Tyco Electronics AMP KK)
			[200 V] Cylindrical Servomotors, 3,000 r/min, 1 to 2 kW Cylindrical Servomotors, 2,000 r/min, 1 to 2 kW	R88A-CAGB□□□SR The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, or 20 m long.		<b>[Servomotor Connector]</b> Straight plug: N/MS3106B20-4S (Japan Aviation Electronics Industry, Ltd.) Cable clamp: N/MS3057-12A (Japan Aviation Electronics Industry, Ltd.)
			[200 V] Cylindrical Servomotors, 3,000 r/min, 3 to 5 kW Cylindrical Servomotors, 2,000 r/min, 3 to 5 kW Cylindrical Servomotors, 1,000 r/min, 2 to 3 kW	R88A-CAGD□□□SR The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, or 20 m long.		<b>[Servomotor Connector]</b> Straight plug: N/MS3106B22-22S (Japan Aviation Electronics Industry, Ltd.) Cable clamp: N/MS3057-12A (Japan Aviation Electronics Industry, Ltd.)
		With Brakes	[200 V] Cylindrical Servomotors, 3,000 r/min, 1 to 2 kW Cylindrical Servomotors, 2,000 r/min, 1 to 2 kW Cylindrical Servomotors, 1,000 r/min, 900 W	<b>Note:</b> Different connectors are used for the motor power and the brake on 200-V, 3,000-r/min Servomotors of 50 to 750 W. When using a Servomotor with a brake, two cables are required: a Power Cable without Brake and a Brake Cable.		<b>[Servomotor Connector]</b> Straight plug: N/MS3106B20-18S (Japan Aviation Electronics Industry, Ltd.) Cable clamp: N/MS3057-12A (Japan Aviation Electronics Industry, Ltd.)
			[200 V] Cylindrical Servomotors, 3,000 r/min, 3 to 5 kW Cylindrical Servomotors, 2,000 r/min, 3 to 5 kW Cylindrical Servomotors, 1,000 r/min, 2 to 3 kW	R88A-CAGD□□□BR The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, or 20 m long.		<b>[Servomotor Connector]</b> Straight plug: N/MS3106B24-11S (Japan Aviation Electronics Industry, Ltd.) Cable clamp: N/MS3057-16A (Japan Aviation Electronics Industry, Ltd.)

**Note:** Insert the cable length into the boxes in the model number of cables. (3 m: 003, 5 m: 005, 10 m: 010)

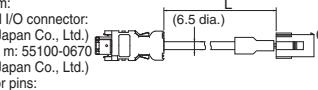
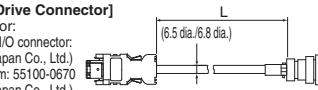
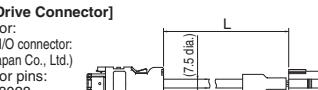
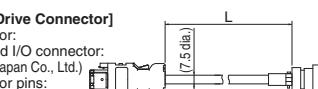
# AC Servomotor/Drive G5-series Pulse Train Input Type

## Brake Cables

Symbol	Name	Connected to	Model	Description
(2)	Non-flexible Cables	Brake Cables [200 V] Cylindrical Servomotors, 3,000 r/min, 50 to 750 W	R88A-CAGA□□□B The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, or 20 m long.	 <b>[Servomotor Connector]</b> Connector: 172157-1 (Tyco Electronics AMP KK) Connector pins: 170362-1 (Tyco Electronics AMP KK) 170366-1 (Tyco Electronics AMP KK)
	Flexible Cables	Brake Cables [200 V] Cylindrical Servomotors, 3,000 r/min, 50 to 750 W	R88A-CAGA□□□BR The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, or 20 m long.	 <b>[Servomotor Connector]</b> Connector: 172157-1 (Tyco Electronics AMP KK) Connector pins: 170362-1 (Tyco Electronics AMP KK) 170366-1 (Tyco Electronics AMP KK)

**Note:** Insert the cable length into the boxes in the model number of cables. (3 m: 003, 5 m: 005, 10 m: 010)

## Encoder Cables (for CN2)

Symbol	Name	Connected to	Model	Description
(3)	Non-flexible Cables Encoder Cables with Connectors	[200 V] Cylindrical Servomotors, 3,000 r/min, 50 to 750 W (Incremental encoder)	R88A-CRGB□□□C The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, or 20 m long.	<b>[Servo Drive Connector]</b> Connector: 3 to 20 m: Crimped I/O connector: (Molex Japan Co., Ltd.) 30 to 50 m: 55100-0670 (Molex Japan Co., Ltd.) Connector pins: 50639-8028 (Molex Japan Co., Ltd.)  <b>[Servomotor Connector]</b> Connector: 172160 (Tyco Electronics AMP KK) Connector pins: 170365-1 (Tyco Electronics AMP KK) 171639-1 (Tyco Electronics AMP KK)
		[200 V] Cylindrical Servomotors, 3,000 r/min, 1kW to 5kW Cylindrical Servomotors, 2,000 r/min, 1kW to 5kW Cylindrical Servomotors, 1,000 r/min, 900W to 3kW	R88A-CRGCI□□□N The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, or 20 m long.	<b>[Servo Drive Connector]</b> Connector: Crimped I/O connector: (Molex Japan Co., Ltd.) 30 to 50 m: 55100-0670 (Molex Japan Co., Ltd.) Connector pins: 50639-8028 (Molex Japan Co., Ltd.)  <b>[Servomotor Connector]</b> Straight plug: N/MS3106B20-29S (Japan Aviation Electronics Industry, Ltd.) Cable clamp: N/MS3057-12A (Japan Aviation Electronics Industry, Ltd.)
	Flexible Cables Encoder Cables with Connectors	Cylindrical Servomotors, 3,000 r/min, 50 to 750 W	R88A-CRGBI□□□CR The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, or 20 m long. (3 to 20 m: 5.2 dia 30 to 50 m: 6.8 dia)	<b>[Servo Drive Connector]</b> Connector: Crimped I/O connector: (Molex Japan Co., Ltd.) Connector pins: 50639-8028 (Molex Japan Co., Ltd.)  <b>[Servomotor Connector]</b> Connector: 172160-1 (Tyco Electronics AMP KK) Connector pins: 170365-1 (Tyco Electronics AMP KK)
		Cylindrical Servomotors, 3,000 r/min, 1kW to 5kW Cylindrical Servomotors, 2,000 r/min, 1kW to 5kW Cylindrical Servomotors, 1,000 r/min, 900W to 3kW	R88A-CRGCI□□□NR The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, or 20 m long.	<b>[Servo Drive Connector]</b> Connector: Crimped I/O connector: (Molex Japan Co., Ltd.) Connector pins: 50639-8028 (Molex Japan Co., Ltd.)  <b>[Servomotor Connector]</b> Straight plug: N/MS3106B20-29S (Japan Aviation Electronics Industry, Ltd.) Cable clamp: N/MS3057-12A (Japan Aviation Electronics Industry, Ltd.)

**Note:** Insert the cable length into the boxes in the model number of cables. (3 m: 003, 5 m: 005, 10 m: 010)

# AC Servomotor/Drive G5-series Pulse Train Input Type

Symbol	Name	Connected to	Model	
(4)	Control Cables Direct connection cable for Position Control Unit (High-speed type)	Line-driver output type (High-speed type) for CJ1W-NC234/434	For 1 axis XW2Z-□□□J-G9 The empty boxes in the model number are for the cable length. The cable can be 1, 5, or 10 m long.	
		Line-driver output type (High-speed type) for CJ1W-NC234/434	For 2 axis XW2Z-□□□J-G1 The empty boxes in the model number are for the cable length. The cable can be 1, 5, or 10 m long.	
		Open collector output type (High-speed type) for CJ1W-NC214/NC414	For 1 axis XW2Z-□□□J-G13 The empty boxes in the model number are for the cable length. The cable can be 1, or 3 m long.	
		Open collector output type (High-speed type) for CJ1W-NC214/NC414	For 2 axis XW2Z-□□□J-G5 The empty boxes in the model number are for the cable length. The cable can be 1, or 3 m long.	
(5)	Servo Relay Units Servo Relay Units/Connection Cables	Position Control Unit: For CJ1W-NC113/NC133 For CS1W-NC113/NC133 (For C200HW-NC113)	For 1 axis XW2B-20J6-1B	
		Position Control Unit: For CJ1W-NC213/NC233/NC413/NC433 For CS1W-NC213/NC233/NC413/NC433 (For C200HW-NC213/NC413)	For 2 axis XW2B-40J6-2B	
		For CJ1M-CPU21/CPU22/CPU23	For 1 axis XW2B-20J6-8A	
			For 2 axis XW2B-40J6-9A	
		For FQM1-MMP22 (Pulse train output)	For 2 axis XW2B-80J7-12A	
(6)	Servo Relay Units/Connection Cables Connection Cables	Servo Relay Unit Cables for Servo Drives	Position Control Unit: For CJ1W-NC□□3, CS1W/C200HW-NC□□□ (XW2B-20J6-1B, XW2B-40J6-2B)	XW2Z-□□□J-B25 The empty boxes in the model number are for the cable length. The cable can be 1, or 2 m long.
			For CJ1M-CPU21/CPU22/CPU23 (XW2B-20J6-8A, XW2B-40J6-9A)	XW2Z-□□□J-B31 The empty boxes in the model number are for the cable length. The cable can be 1, or 2 m long.
			For FQM1-MMP22 (Pulse train output) (XW2B-80J7-12A)	XW2Z-□□□J-B26 The empty boxes in the model number are for the cable length. The cable can be 1, or 2 m long.
(7)	Servo Relay Units/Connection Cables Connection Cables	Servo Relay Unit Cables for Position Control Units	CJ1W line-driver output type for CJ1W-NC133	For 1 axis XW2Z-□□□J-A18 The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.
			CJ1W line-driver output type for CJ1W-NC233/NC433	For 2 axis XW2Z-□□□J-A19 The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.
			CS1W line-driver output type for CS1W-NC133	For 1 axis XW2Z-□□□J-A10 The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.
			CS1W line-driver output type for CS1W-NC233/NC433	For 2 axis XW2Z-□□□J-A11 The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.
			CJ1W open collector output type for CJ1W-NC113	For 1 axis XW2Z-□□□J-A14 The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.
			CJ1W open collector output type for CJ1W-NC213/NC413	For 2 axis XW2Z-□□□J-A15 The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.
			CS1W/C200HW open collector output type for CS1W-NC113 for C200HW-NC113	For 1 axis XW2Z-□□□J-A6 The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.
			CS1W/C200HW open collector output type for CS1W-NC213/NC413 for C200HW-NC213/NC413	For 2 axis XW2Z-□□□J-A7 The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.

**Note:** Insert the cable length into the boxes in the model number of cables. (3 m: 003, 5 m: 005, 10 m: 010)

System Configuration

AC Servo Drive

AC Servomotor

Ordering Information

# AC Servomotor/Drive G5-series Pulse Train Input Type

Symbol	Name		Connected to			Model	
(7)	Servo Relay Units/Connection Cables	Servo Relay Unit Cables for Position Control Units	CSW/C200HW open collector output type for CJ2M-CPU31/CPU32/CPU33/CPU34/CPU35 for CJ2M-CPU11/CPU12/CPU13/CPU14/CPU15		For 1 axis	XW2Z-□□□J-A33 The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.	
			For FQM1-MMP22 (Pulse train output)		General-purpose I/O (26 pin)	For 2 axis	XW2Z-□□□J-A28 The empty boxes in the model number are for the cable length. The cable can be 0.5, 1, or 2 m long.
			For FQM1-MMP22 (Pulse train output)		Special I/O (40 pin)	For 2 axis	XW2Z-□□□J-A30 The empty boxes in the model number are for the cable length. The cable can be 0.5, 1, or 2 m long.
(8)	General-purpose Control Cables with Connector on One End		Cables for General-purpose Controllers			R88A-CPG□□□S The empty boxes in the model number are for the cable length. The cable can be 1, or 2 m long.	
(9)	For Connector Terminal Block	Connector Terminal Block Cables	Cable for General-purpose Controllers			XW2Z-□□□J-B24 The empty boxes in the model number are for the cable length. The cable can be 1, or 2 m long.	
(10)		Connector-Terminal Block Conversion Units	Cable for General-purpose Controllers		M3 screws	XW2B-50G4	
					M3.5 screws	XW2B-50G5	
					M3 screws	XW2D-50G6	

**Note:** Insert the cable length into the boxes in the model number of cables. (3 m: 003, 5 m: 005, 10 m: 010)

## Monitor Connector (for CN5)

Symbol	Name	Lengths	Model
(11)	Analog Monitor Cable	1 m	R88A-CMK001S

## Communications Connector (for CN7)

Symbol	Name	Description
(12)	USB communications cable	General purpose USB cable can be used

**Note:** Use a commercially available USB cable that is shielded, equipped with a ferrite core for noise immunity, and supporting for USB2.0. The Mini B type USB cable can be used.

## Connectors

Connectors	Name	Model
CN1	Control I/O Connector (General-purpose Input)	R88A-CNU11C
CN2	Encoder Connector	R88A-CNW01R

## Servomotor Connector

Connectors	Name	Connected to	Model
—	Motor connector for encoder cable	3,000 r/min, 50 to 750 W	R88A-CNG02R
—	Power cable connector	750 W max. (100 V/200 V)	R88A-CNG01A
—	Brake cable connector	750 W max. (100 V/200 V)	R88A-CNG01B

## About Manuals

Please read the relevant manuals of G5-series Pulse Train input Type

English Cat. No.	Japanese Cat. No.	Type	Name
I584	-	R88D-KP/R88M-KE	G5-series Pulse Train Input Type AC SERVOMOTORS AND SERVO DRIVE USER'S MANUAL
W446	SBCA-337	CXONE-AL□□C-V□/AL□□D-V□	CX-Programmer Operation Manual
W453	SBCE-337	CXONE-AL□□C/D-V□ WS02-DRVCO1	CX-Drive OPERATION MANUAL

## MEMO

Ordering Information

**MEMO**

## Read and Understand this Catalog

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